LAND RECLAMATION COMMISSION

P.O. BOX 176 JEFFERSON CITY, MISSOURI 65102 573-751-4041

Permit to Engage in Surface Mining

LAND RECLAMATION COMMISSION

ISSUES TO

LEO JOURNAGAN CONSTRUCTION COMPANY, INC.

Pursuant to "The Land Reclamation Act," RSMo, 2001, and on conformity with the statements in the application, a permit is hereby granted to engage in surface mining of limestone in the state of Missouri. The extent of the proposed mining operation(s) will be on 527 acres, more or less.

The locations of the operation(s) under this permit is/are as follows: Renewal

See Attached List

This permit may be suspended or revoked upon violation of any or all of the conditions set forth in "The Land Reclamation Act," RSMo. 2001, or in such rules and regulations as are promulgated pursuant thereto by the Land Reclamation Commission.

IN WITNESS WHEREOF I have hereunto set my hand this

28th

day of

July

2004

DIRECTOR OF STAFF

Land Reclamation Commission

Permit No. 0287
Effective Date 08/01/2004
Expiration Date 07/31/2005

Company Name: LEO JOURNAGAN CONSTRUCTION COMPANY, INC.

Permit Number: 0287 Expiration Date – 07/31/2005

County	Section	Township	Range	Acres	Acres	Total	Site/Stream Name	Site
,				Renewed	New	Acres		Number
Douglas	25	26N	16W	20	0	20	Ava	0344
Christian	09	27N	23W	51	0	51	Battlefield	0345
Iron	32	34N	01E	5	0	5	Black	0346
Polk	35	32N	24W	16	0	16	Eudora	0347
Ozark	15, 16	22N	14W	15	0	15	Gainesville	0348
Taney	25	23N	19W	18	0	18	Hilda	0349
Taney	20	22N	21W	60	0	60	Hollister North	0350
Taney	29, 30, 31	22N	21W	88	0	88	Hollister South	0351
Taney	03, 34	22N, 23N	22W	52	0	52	HWY 376	0352
Christian	20	27N	20W	10	0	10	McCracken	0357
Taney	16	21N	17W	15	0	15	Protem	0354
Christian	33, 34	28N	21W	86	0	86	Ozark	0343
Stone	23	24N	23W	45	0	45	Reeds Spring	0355
Barry	05	22N	25W	46	0	46	Shell Rock	0356
				1	1			
						1		
				1		-		
				1				
				1				

MISSOURI DEPARTMENT OF TURAL RESOURCES
LAND RECLAMATION COMMISSION
PERMIT RENEWAL FOR INDUSTRIAL MINERAL MINES

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P.O. BOX 176
JEFFERSON C

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				JEFFERSON	CITY, MO 65102-0176
NAME OF CORPORATION, COMPANY, PARTNERSHI		MISS RECLAMAT	OURI LAND	ATE SICA June 29.2004	
Leo Journagan Construction Com ADDRESS	pany. Inc.	CITY	s	June 29.2004	ZIP CODE
3003 East Chestnut Expressway,	Suite 1200	Springfield		Missouri	65802
CONTACT PERSON				ELEPHONE NUMBER	
Dwayne Harrison				417-337-8877	
FEES: COMPLETE SECTION I OR		F 000 tone of cond			
SECTION I. Fees: Open pit operators. 1. To compute the site fee complete.		ian 5,000 tons of sand t	and/or graver	•	
SITE NAME OR NUMBER	Mark each month th	nat the site will be opera	ted during	or sites operated le	ess than six months per
(add a separate sheet for additional s		•	F		six months or more per
1.	Jan, Feb, Mar, Apr, M	lay, Jun, Jul, Aug, Sep, Od			
2. (See Next Page For	Jan, Feb, Mar, Apr, M	lay, Jun, Jul, Aug, Sep, Od	ct, Nov, Dec \$	3	
3. List of Sites.)	Jan, Feb, Mar, Apr, M	lay, Jun, Jul, Aug, Sep, Od	ct, Nov, Dec \$	3	
4.	Jan, Feb, Mar, Apr, M	lay, Jun, Jul, Aug, Sep, Od	ct, Nov, Dec	3	
5.	Jan, Feb, Mar, Apr, M	lay, Jun, Jul, Aug, Sep, Od	ct, Nov, Dec \$	3	
6.	Jan, Feb, Mar, Apr, M	lay, Jun, Jul, Aug, Sep, O	ct, Nov, Dec \$	<u> </u>	
7.	Jan, Feb, Mar, Apr, M	lay, Jun, Jul, Aug, Sep, O	ct, Nov, Dec	3	
8.	Jan, Feb, Mar, Apr, M	lay, Jun, Jul, Aug, Sep, O	ct, Nov, Dec \$	<u> </u>	
9.	Jan, Feb, Mar, Apr.	lay, Jun, Jul, Aug, Sep, O	ct, Nov, Dec	S	
10.	_ + * Note-	, Aug, Sep, O	ct, Nov, Dec 1	S	
TOTAL SITE FEE	- 617 includes	an —	→ 8	3600	
TOTAL SITE FEE 2. Acreage Fee \$5 X 617 n 3. Annual Permit Fee	umb execusion applic	ation-			
	- for gogeres that	insport			
3. Annual Permit Fee	who per all			500	
4. Total Fee (Add totals from 1, 2 a	ind 3)			7185	
NOTE: If Total Fee exceeds \$2,50	00.00 then pay only			2,500	
SECTION II. FEES: Sand or gravel	operators mining less than s	5,000 tons per year:		**	
1. Annual Permit Fee				300	
SIGNATURE OF APPLICANT		TITLE		DATE	
DWUM Dan	<u></u>	Env. En.	r	June 29,20	004
Appeared before me this 29	day of June	, 20 <u>04</u> , <i></i>	Dwayne	Harrison	2
to me personally known, who execut		and deeds.			
NOTARY PUBLIC EMBOSSER SEAL STATE	of 777		COUNTY (OR CIT	Y OF ST. LOUIS)	
SUBSO	RIBED AND SWORN BEFORE ME. THIS		Tree	10 —	
	29 DAY OF (MAR 2004	USE RUBBE	R STAMP IN CLE	EAR AREA BELOW.
NOTAR	Y PUBLIC SIGNATURE	MY COMMISSION EXPIRES	,,,,,,	144.	
7	Timus I Ina also us		, Joiary		IA I. CRAIGHEAD
1000	Y PUBLIC NAME (TYPED OR PRINTED)	11-21-07	No		Greene County
	Vina I Craighead	•	Se	al Sa My C	Commission Expires
TUSE ONLY: APPROVED BY	DATE APPROVED	/ PERMIT NUMB			XATEBER 21, 2007
MO 780-1780 (12-02)	7/20/	04 028	57	7/31/	105
MO 780-1780 (12-02) /					

SITE NAME OR NUMB (add a separate sheet for		Mark each month that the site will be operated during the permit year	For sites operated less than six months per permit year pay \$150 For sites operated six months or more per permit year pay \$300
1. Ava	0344	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$300
2. Battlefield	0345	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$150
3. Black	0346	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$150
4. Eudora	0347	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$150
5. Gainesville	0348	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$300
6. Hilda	0349	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$300
7. Hollister North	0350	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$300
8. Hollister South	0351	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$300
9. Hwy. 376	0352	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$300
10. McCracken	0357	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$300
11. Protem	0354	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$150
12. Ozark	0343	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$300
13. Reeds Spring	0355	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$300
14. Shell Knob	0356	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$300
15.		Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
16.		Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
17.		Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
18.		Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
19.		Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
20.		Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	\$
TOTAL SITE FEE -			\$3,600

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JUL 1 2004

MISSOURI LAND RECLAMATION COMMISSION



MISSOURI DEPARTMENT OF WURAL RESOURCES LAND RECLAMATION COMMISSION SITE INFORMATION FORM

To be completed for each separate a	rea of disturbance associated	with mining operation	IS.
,	rea of disturbance associated		
SITE NAME OF NUMBER	۸	PERMIT NUMBER 287	
9	W	207	
COMPANY NAME			
Leo Journagan Constr	ruction Company, Inc.		
COUNTY	1/4 SECTION		SECTION
Douglas	NW, SW, S	E	25 & 3 6
TOWNSHIP	RANGE		ACRES
26N	16W		170 M.O.L.
RIVER OR STREAM NAME (FOR IN-STREAM	ACRES)		
NA			
THE STATE OF THE S		ESTIMATED TONS/YEAR (F	FOR CRAVE: CITES
MINERAL COMMODITY Limestone		NA	ON GRAVEL SITES!
Linescone			
NAME OF LANDOWNER (ATTACH LIST IF MO	ORE THAN ONE)		
Leo Journagan Constr	cuction Company, Inc.		
ADDRESS			
	Expressway, Suite 120	0	
		STATE	ZIP CODE
Springfield		MO	65802
SOURCE OF RIGHT TO MINE (CHECK ONE):			DATE OF AGREEMENT
MINERAL DEED		LEASE	
WARRANTY DEED		VERBAL AGREEMENT	
OTHER (DESCRIBE):			
MINERAL RIGHTS OWNER (ATTACH LIST IF	MORE THAN ONE;		
	ruction Company, Inc.		
ADDRESS			
	Cuito 120	0	
	Expressway, Suite 120		
CITY		STATE	ZIP CODE
Springfield		MO	65802
SQUACE OF RIGHT TO MINE (CHECK ONE):			DATE OF AGREEMENT
MINERAL DEED		LEASE	
X VARRANTY DEED		TIVERBAL AGREEMENT	
TOTHER (DESCRIBE):			

NCTE: Each site must be shown on a map and be included in a public hotice and an approved mine plan.



P.O. BOX 176 JEFFERSON CITY, MO 65102

THE OFFERIA (OFFERIA CONE).		Λ
SHORT TERM, FOR ONE PERMIT YEAR	7-31-2022	Ava: Site 9
LONG TERM. FOR PERIOD THROUGH DATE:)
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION	I COMMISSION PERMITTING (BY APPLICANT OR	PRIOR OPERATOR), INCLUDING SOIL, VEGETATION
AND TOPOGRAPHY.		
Site No. 9:		
	en mined and/or used as an in	
	sed rock. The remaining acre	
	and rocky. A county road bor	
the property. There are cur	rrently 7 acres under pend at	this location.
	bond	
	·	
OPERATION PLAN - 10 CSR 40-10.020(2)(D)	<u>1.</u>	
A. TOPSOIL		
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLA	MATION COMMISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?
	4	YES OR MO
	INCHES	LI YES OR LI NO
DESCRIBE METHODS AND EQUIPMENT USED FOR TOP	SOIL REMOVAL	
Dozers will strip and remove	e trees. Scrapers will remov	e tonsoil and sufficient
overburden to maintain the	12" depth requirement for top	soil This topsoil will
be stockniled near the north	h side of the property so tha	t it will be segregated
from overburden and spoils of	during mining. Topsoil will	he segregated
	diring mining. Topsoil Will	be removed 20' ahead of
pit excavation.		
DESCRIBE METHODS AND EQUIPMENT USED FOR TOP	SOIL STORAGE AND PROTECTION	
Topsoil will be stored along	g the north property boundary	temporarily during the
mining operation. Seed will	l be applied to the topsoil s	tockniles to control
erosion.	appress to the topsoff s	compiles to control

287 Journegan

MO *80-1327 (12-91)

Revised 09/	/25/96	Permit #287		Ava	
. Spoil					
Describe Meth	ods and Locations of Spo	il Placement and Disposal			
These mate	erials will be used a	s a base below soil repla	cement areas, to re	e rock will be refereed to a duce highwalls, stockpile s will be active for the ent	d as
. Acid Ma	toriale				
		for Handling Acid Material (If No		HALL THE DELLEY	
		imensions in Feet)			
See Map		,			
es No	Will any excavation be a	t or within fifty feet (50') of the rig	ht-of-way of any public ro	pad?	
X	public road? (NOTE: I start near the right-of-w or twenty-five feet plus	ting of unconsolidated materials For unconsolidated materials left ray, and in no case may the exca one and one-half (1-1/2) times the ice is granted by the Commission	in place, a slope of no mo vation be closer to the rig se depth of unconsolidate	ore than forty degrees may ht-of-way than fifty feet	
X		nt at or within fifty feet (50') of an is "yes", a safety barrier may be	y property line? needed.)	ECEIVE D	
O 780-1327 (12-9	91)			001 0 4 199b D	Page 2 of 5

MO 780-1327 (12-91)

MISSOURI LAND RECLAMATION COMMISSION

h	OCT 21 1996	
1	OCT 91	
J e	2 1996	

Revised 10/17/96	Permit #287	Ava	Alice
Reclamation Plan-10 CSR 40-1	0.020(2)(D)2.	RE	CLAMATION COMMISSION
A. Revegetation (Attach addition	nal sheets, if needed)		MORSIMMOD VICTOR
Revegetation Mix #1	Purpose Or Land Use	Seeding Or Plant	ing Time
Α	Temporary Cover	A	s Needed

Describe Methods and Equipment to be Used for Seeding or Planting

To be used on areas that will be disturbed repeatedly during the life of the mine.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Smooth Bromegrass and	12			
Perennial Ryegrass	12			
or Fescue	25			
Annual Ryegrass	50			
Revegetation Mix #2	Purpose Or Land Use		Seeding Or	Planting Time
В	All Land uses exc	ept impoundments	Fall, Spri	ng & Frost

Describe Methods and Equipment to be Used for Seeding or Planting

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Pounds/Acre	Tree or Shrub Species	Stems/Acre
8		
12		
12		
12		
50		
	8 12 12 12	8 12 12 12

Describe Methods and Equipment to be Used for Seeding or Planting

The seed mix will be broadcast on areas with sufficient cover to prevent erosion that have been seeded with mix A or B. On areas where the soil is slightly acidic or has low fertility this mix is expected to become dominant.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the relestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Spe	cies	Stems/Acre
Big Bluestem	3			
Indiangrass	3			
Little Bluestem	3			
Sideoats Grama	3			
Switchgrass (common)	3			
Forbs Mix	0.75			
Redtop	8			
Revegetation Mix #4	Purpose Or Land Use		Seeding Or Pla	anting Time
D	All land uses exce	pt impoundments	Spring	

Describe Methods and Equipment to be Used for Seeding or Planting

Tree seedlings will be added to areas with sufficient cover to pervent erosion.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
		Jack Pine,	
		Red Pine,	
		Persimmon,	
		Red Mulberry,	700
		Hackberry,	
		Shrub Lespedeza and/or	
	İ	Hazelnut	

Attach Additional Sheets For Additional Seed Mixes

OCT 1 5 1996

B. Grading

Describe Proposed Reclaimed Topography, Including Slopes

The spoil consist of soil horizons with greater than 25 percent fragments and waste rock. Typically all voids are filled with soil size particles resulting in a good root growth material. The spoil will be used to cover highwalls, create natural areas or to reduce the depth of the pit floor. Soil material with less than 25% fragments will be redistributed at a thickness of 12 inches on locations that are expected to have a udic (free draining) soil environment and slopes of 3:1 or less.

Areas exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with soil material after covering areas of lesser slope, these areas will always have at least 24 inches of root growth material. At no time will the slope of the material be artificially increased beyond that at which the material is naturally stable.

All other areas not exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with a layer of soil material, as available, to a minimum thickness of 12 inches. The slopes will be 5:1 or less.

If an area is not conducive to vegetation it will be covered with coarse aggregate, (Examples: columnar weathering above a highwall, parking areas, spillways, etc.).

C. Describe The General Sequence and Timing of the Follo	owing Activities
Grading	
10 CSR 40-10.050(10)(A)&(C)	
Grading will be completed within twelve (12) months after the clonger needed as a part of the active operation of the site.	expiration or renewal of the permit on areas no
Replacement of Topsoil	
10 CSR 40-10.050(10)(A)	
Topsoil replacement will be completed within twelve (12) mont on areas no longer needed as a part of the active operation of	
Revegetation	
Initial revegetation will occur during the first year after grading	and soil replacement.
Average Depth of Replaced Topsoil (Inches)	
12 inches of soil r	material
D. Use of Land When Reclaimed	Estimated Acres:
Estimated acreage of each land use below, after reclamation	
Wildlife (forest or other habitat with livestock excluded)	
Agriculture (pasture, cropland, and horticultural)	
Development (residential, industrial, and recreational)	46
Water Impoundments (for wildlife, agricultural, or development)	CEIVE
MO 780-1327 (12-91)	U 4 1996 Page 4 of 5

By my signature, I attest to the following:

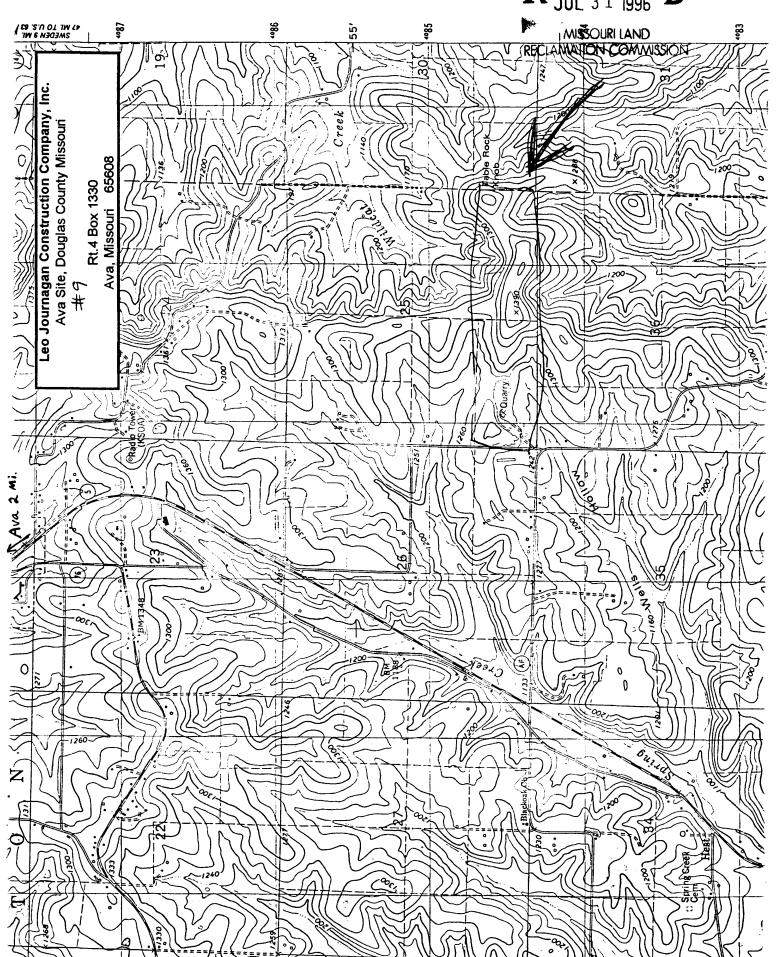
- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Section 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowners for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

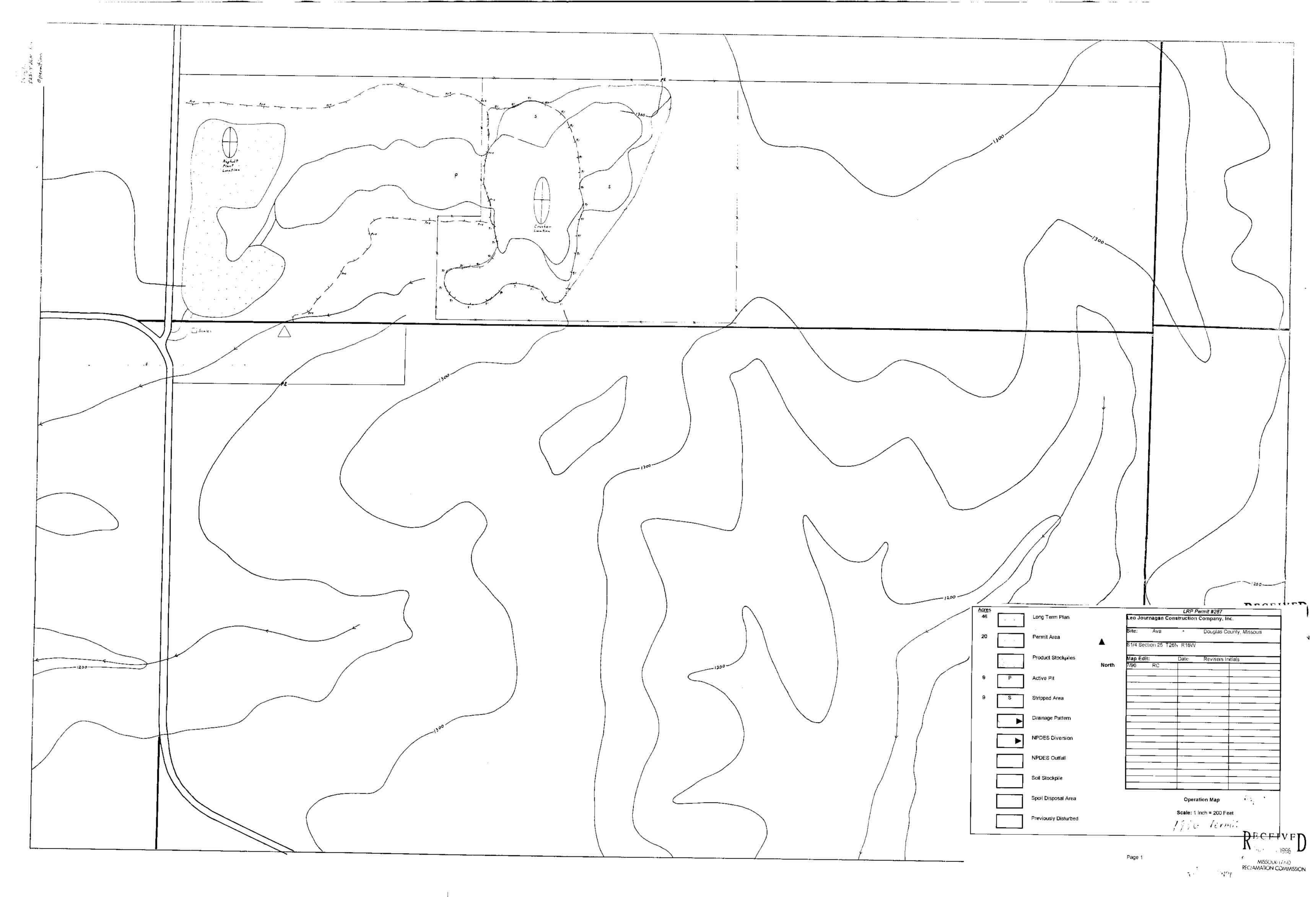
Leo Journagan Construction Company Ava Quarry Permit 287

Signature of Applicant	Title			Date	
Rosell C	amley	Enviro	onmental Geologist	Oc	ctober 1, 1996
lotary Public Embosser Seal	State			County (Or City of St.	Louis)
	Missouri				
	Subscribed and Sworn Be	efore me, This		Gree	ne
	01 Day Of	October	1996	Use Rubber Stamp	Below
	Notary Public Signature Una J Notary Public Name (Typ Nina I	Craighe	My Commission Expires	NOTARY PUE GR	A I CRAIGHEAD BLIC STATE OF MISSOUR EENE COUNTY ISION EXP NOV 4,1999
Approved By (Director's Ro	epresentative)		Date Approved PECE1	VF -96	Number C287
MO 780-1327 (12-91)			A UCI U 4	1996	Page 5 of 5

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To be completed for each separate area of	disturbance associate	ed with mining operation	S.	
SITE NAME OR NUMBER	1 5 ! !	PERMIT NUMBER		
2 Bat	lefield	287		
COMPANY NAME				
Leo Journagan Construction	Company, Inc.			
COUNTY	1/4 SECTION		SECTION	
Christian	SW,SE,	, NW	9	
TOWNSHIP	RANGE		ACRES	
27N	23W		51	
RIVER OR STREAM NAME (FOR IN-STREAM ACRES)				
NA MINERAL COMMODITY		ESTIMATED TONS/YEAR (F	OR CDAVEL SITES)	
			on diavez sives)	
Limestone NA				
NAME OF LANDOWNER (ATTACH LIST IF MORE THA	AN ONE)			
Leo Journagan Construction	Company, Inc.			
ADDRESS				
3003 East Chestnut Expressw	av. Suite 1200			
CITY		STATE	ZIP CODE	
		Missouri	65802	
Springfield SOURCE OF RIGHT TO MINE (CHECK ONE):		MISSOUII	DATE OF AGREEMENT	
MINERAL DEED		LEASE		
× warranty deed		☐ VERBAL AGREEMENT	NA	
OTHER (DESCRIBE):		CHOSE AGREEMENT		
OTHER (DESCRIBE).				
	<u>-</u>			
MINERAL RIGHTS OWNER (ATTACH LIST IF MORE T	HAN ONE)			
Leo Journagan Construction	Company, Inc.			
ADDRESS				
3003 East Chestnut Expressw	ay, Suite 1200			
CITY		STATE	ZIP CODE	
Springfield		Missouri	65802	
SOURCE OF RIGHT TO MINE (CHECK ONE):		1	DATE OF AGREEMENT	
☐ MINERAL DEED		LEASE	, NA	
X WARRANTY DEED		VERBAL AGREEMENT		
OTHER (DESCRIBE):				
NOTE: Each site must be shown on a map	and be included in a	public notice and an ann	proved mine plan	

FILE

Revised 10/02/96	Permit #	1 287	Battlefield
Missouri Department Of Natura		7201	P.O. Box 176
Land Reclamation Program	ar resources		Jefferson City, MO 65102
Mine Plan			•
Short Term, For One Fern	nit Year		
X Long Term, For Period Th		July 31, 2022	
		sion Permitting (By Applicant or	Prior Operator), Including Soil, Vegetation and Topography.
Vegetation: Pasture a	ınd small area (3 a	c.) of hardwood forest.	
Soil and Topography			
Goss Series: Cherty-sl	keletal, mixed, me	sic Typic Paleudalfs, 7 _ا	percent slope.
A Horizon: 6 inches, ch	erty silt loam, 25%	6 fragments.	
B Horizon: 54 inches,	very cherty silty cla	ay, 45% fragments.	
Operational Plan 40.0	CD 40 40 000/0\/F	N4	
Operational Plan-10 C	SR 40-10.020(2)(L)ןו	
A. Topsoil	to to a to a to a to a to a		T. T
Average Depth of Topsoil, Prior	r to Land Reclamation C		Is Topsoil to be Sold or Discarded Offsite?
		6 inches	Yes or X No
Describe Methods and Equipment	ent Used for Topsoil Re	emoval	
Soil material will be rem	noved with scraper	re loaders and dumn true	cks. The soil material may contain both the A
	•	•	erial with less that 25% fragments will be
	e the percent of it	ock fragilierits. Soil filati	enal with less that 25% fragments will be
saved.			
1			
Ī			
1			
•			
		J.D. A. C.	
Describe Methods and Equipm	nent Used for Topsoil St	orage and Protection	

Soil material will be stockpiled within the permitted area and seeded with Mix A to prevent erosion. If possible

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MO 780-1327 (12-91)

soil material will be hauled directly to reclamation sites.

MISSOURI LAND RECLAMATION COMMISSION

Revised	10/02/96
(CVISCU	10/02/30

Permit #287

Battlefield

D	C	_	_	i	ı	
О.	J	u	u	ı	ı	

Describe Methods and Locations of Spoil Placement and Disposal

Soil materials that contain excess fragments, lower soil horizons and waste rock will be refereed to as spoil. These materials will be used as a base below soil replacement areas, to reduce highwalls, stockpiled as construction fill or placed in permanent disposal areas.

There will be one spoil disposal location at this quarry. The disposal areas will be active for the entire life of the mine.

A safety berm has been constructed with B horizon material around the perimeter of the property. This berm limits unauthorized access to the property and equipment on the site. This berm also functions as a visual screen for those living within sight of the processing and distribution areas.

Newest

C.	Ac	id	Ma	ter	ial	S

Describe Methods and Equipment Used for Handling Acid Material (If None is Anticipated, Write "None" Below)

None

D. Pit Information (Give All Dimensions in Feet)

Describe Location and Orientation of Pit, If Not Clear on Site Maps

See Map

Yes	No X	Will any excavation be at or within fifty feet (50') of the right-of-way of any pu	ublic road?
	X	Will any highwall consisting of unconsolidated materials be left within fifty for public road? (NOTE: For unconsolidated materials left in place, a slope of start near the right-of-way, and in no case may the excavation be closer to or twenty-five feet plus one and one-half (1-1/2) times the depth of unconsegreater, unless a variance is granted by the Commission.)	no more than forty degrees may the right-of-way than fifty feet
	X	Will any excavation start at or within fifty feet (50') of any property line? (NOTE: If the answer is "yes", a safety barrier may be needed.)	RECEIVED

Page 2 of 5

	404	700
Revised	10/1	//96

Permit #287

Battlefield

RECEIVED

Reclamation	Plan-10	CSR 40	-10.020	(2)(D)2.

A. Revegetation (Attac	h additional sheets, if needed)	Seeding Or Planting Time As Needed
Revegetation Mix #1	Purpose Or Land Use	Seeding Or Planting Time COMMISSION
Λ	Temporary Cover	As Needed

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on a pagetysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Smooth Bromegrass and	12			
Perennial Ryegrass	12			
or Fescue	25			
Annual Ryegrass	50			
Revegetation Mix #2	Purpose Or Land Use		Seeding C	or Planting Time
В	All land uses exce	ept impoundments	Fall, Sr	oring & Frost

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
Ladino Clover or	8		
Crown Vetch			
Smooth Bromegrass	12		
Orchardgrass	12		
Perennial Ryegrass	12		
Annual Ryegrass	50		

Revised 10/10/96	Permit #287	Battlefield			
Reclamation Plan-10 CSR 40-10.020(2)(D)2.					
A. Revegetation (Attach	additional sheets, if needed)				
Revegetation Mix #3	Purpose Or Land Use	Seeding Or Planting Time			
С	All Land uses except impoundments	Winter and Spring			

Describe Methods and Equipment to be Used for Seeding or Planting

The seed mix will be broadcast on areas with sufficient cover to prevent erosion that have been seeded with mix A or B. On areas where the soil is slightly acidic or has low fertility this mix is expected to become dominant.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Big Bluestem	3			
Indiangrass	3			
Little Bluestem	3			
Sideoats Grama	3			
Switchgrass (common)	3			
Forbs Mix	0.75			
Redtop	8			
Revegetation Mix #4	Purpose Or Land Use		Seeding Or	Planting Time
D	All land uses exce	pt impoundments	Spring	

Describe Methods and Equipment to be Used for Seeding or Planting

Tree seedlings will be added to areas with sufficient cover to pervent erosion.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
		Jack Pine,	
		Red Pine,	
	,	Persimmon,	
		Red Mulberry,	700
		Hackberry,	
		Shrub Lespedeza and/or	
		Hazelnut	
	:		

Attach Additional Sheets For Additional Seed Mixes

RECEIVED



MEMO

File:

Journagan Quarry, Christian County Site, Battlefield (#2

Date:

June 26, 1996

Reviewer:

Harvey Petersen

Subject:

Vegetation Mix Review

The top six (6) inches of soil material they have to work with is described as a cherty silt loam. This appears to be typical "Ozark" plateau surface material. Far from ideal material to work with.

Mixture A: They are using this mix for temporary cover. I'm assuming they will be using this on their topsoil stockpiles with relatively steep slopes where the primary requirement is for cover and erosion control.

- * Ladino Clover. This legume is used primarily for pasture use and is generally not known for any "erosion" control capabilities. Many of your legumes will almost disappear in the winter and not offer anything for cover or erosion control.
- * Smooth Bromegrass. This grass will offer good erosion control in areas of the northern plains states. Missouri is a transition zone. Southern Missouri is for the most part out of the recommended use zone. It requires a deep fertile soil, one that I don't think Journagan has available.
- * Annual Ryegrass. This will offer good temporary cover. Uncontrolled it can smoother out young grasses trying to become established.
- * Little Bluestem: I question why they would even consider this grass for temporary cover, considering it is more expensive and a slow growing bunch grass. It will grow well in heavy clay droughthy soils however.

If they are looking at temporary cover, why not use a high rate (40-60#) of perennial rye. This is fast growing, gives excellent erosion control and summer and fall growth will protect the areas throughout the winter. They are also located in a more appropriate area of the U.S. for growing this grass. Fescue can be mixed in with the rye, but as we discussed there could be some seed carryover when redistributed and if used on a wildlife area would need good management to keep it suppressed.

Journagan Veg. Mix June 26, 1996 Page 2

Mixture B: Page 3. I don't see too much wrong with this mix other than the rates are too low for broadcasting. It needs to be increased about 50% or more. The orchardgrass rate is at a low rate for a mixture. This should be increased to at least 10-12 lbs. They also need to realize that they will be seeding In less than desirable soil material. The cheapest seeding is always the first one. I see no reason to include the bluestem. How can you manage for cool and warm season species at the same time. Save your money. Add some timothy if another grass is wanted.

Mixture C: Page 3 (copy). If they want to establish a warm season wildlife area it would do well to use a mixture of 3 or 4 warm season species. I believe they can be purchased in an acceptable already prepared package. The ladino will not contribute much but its cheap and nice to have available. I would prefer to add Korean or Kobe Lespedeza at the 5# rate to the seed mix. The seed mix listed needs to be drilled. If they want to broadcast, they need to use a cultipacker to push the seed into direct contact with the soil and provide a seal on the soil surface to help hold in moisture for the seed to germinate.

The mix listed in the mine plan for Willow Springs site has more chance for success, but still needs to be cultipacked after seeding. According to the NRCS, The rates appear to be appropriate for a wildlife mix.

All legumes need to be innoculated.

Mixture D: Wildlife tree planting. I have no comment on this mix or would be familiar with success rates from seed. The stems per acre would be adequate considering a 50% success rate.

B. Grading

Describe Proposed Reclaimed Topography, Including Slopes

The spoil consist of soil horizons with greater than 25 percent fragments and waste rock. Typically all voids are filled with soil size particles resulting in a good root growth material. The spoil will be used to cover highwalls, create natural areas or to reduce the depth of the pit floor. Soil material with less than 25% fragments will be redistributed at a thickness of 12 inches on locations that are expected to have a udic (free draining) soil environment and slopes of 3:1 or less.

Areas exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with soil material after covering areas of lesser slope, these areas will always have at least 24 inches of root growth material. At no time will the slope of the material be artificially increased beyond that at which the material is naturally stable.

The berm around the perimeter of the property complies with the exemption from grading requirements as provided by 10 CSR 40-10.050(5)(B) 3 and 5. Journagan Construction considers paragraph 3 to fit this reclamation situation best.

All other areas not exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with a layer of soil material, as available to a minimum thickness of 12 inches. The slopes will be 5:1 or less.

If an area is not conducive to vegetation it will be covered with coarse aggregate, (Examples: columnar weathering above a highwall, parking areas, spillways, etc.).

C. Describe The General Sequence and Timing of the Following Activities

Grading

10 CSR 40-10.050(10)(A)

Grading will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

Replacement of Topsoil

10 CSR 40-10.050(10)(A)

Topsoil replacement will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

Rev		

Initial revegetation will occur during the first year after grading and soil replacement.

Average Depth of Replaced Topsoil (Inches)

12 inches of soil material

D. Use of Land When Reclaimed	Estimated Acres:
Estimated acreage of each land use below, after reclamation	
Wildlife (forest or other habitat with livestock excluded)	17
Agriculture (pasture, cropland, and horticultural)	
Development (residential, industrial, and recreational)	34
Water Impoundments (for wildlife, agricultural, or development)	IVE
MO 780-1327 (12-91)	1 100C Page 4 of 5

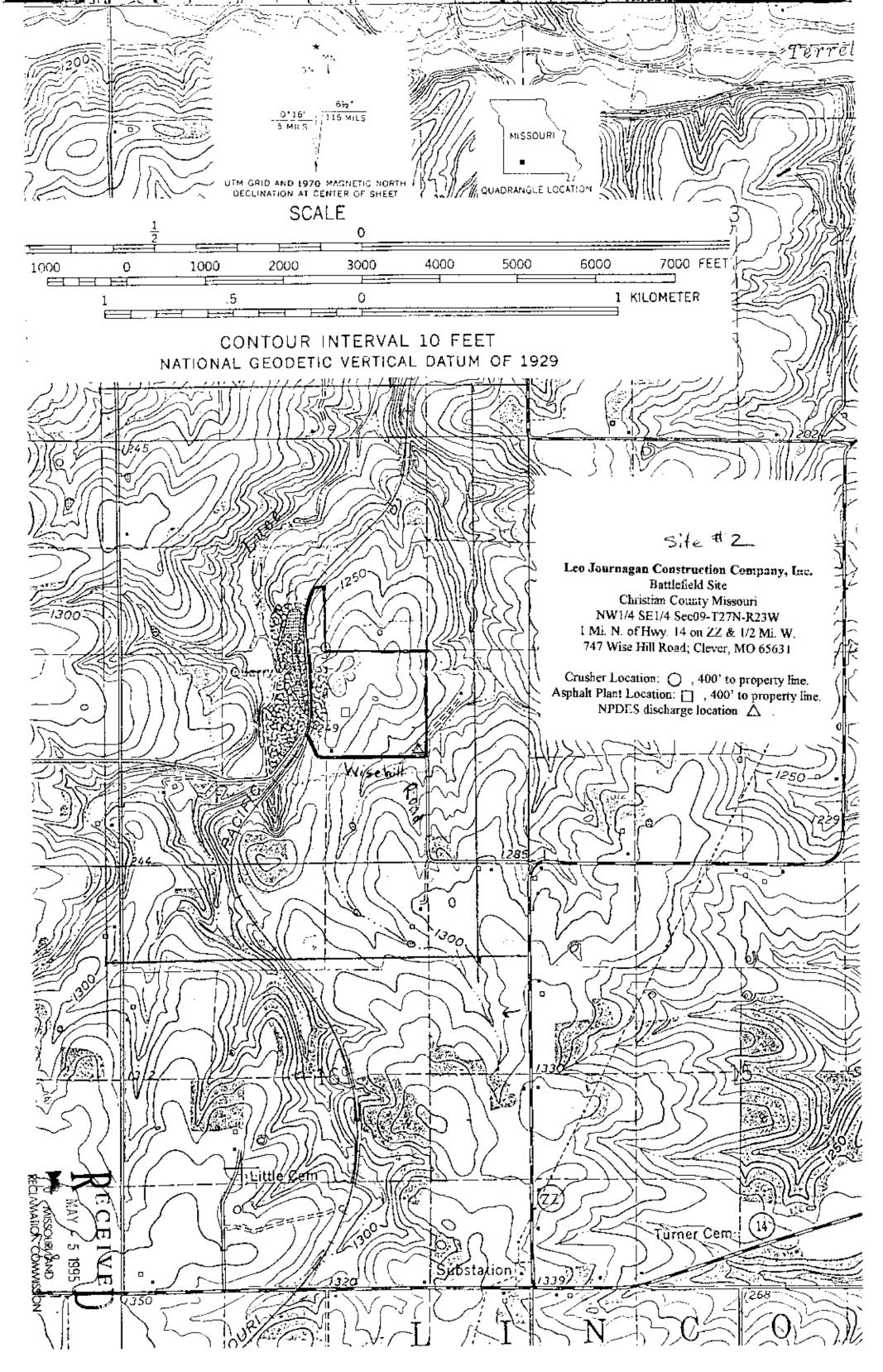
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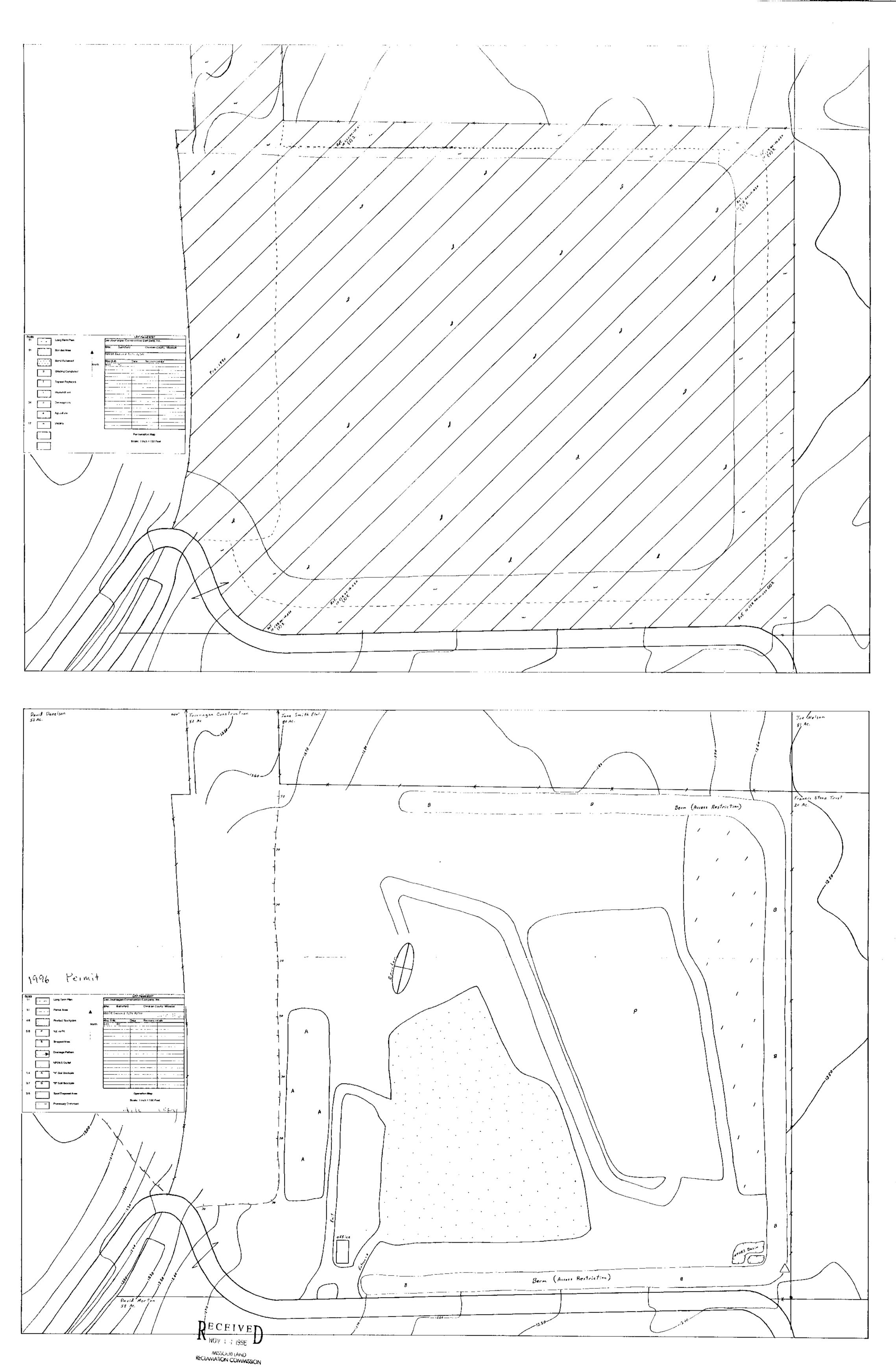
By my signature, I attest to the following:

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Section 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained ate approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and future where I have no such right, I have attached signed affidavits from the landowners, granting such access.

BattloField

Signature of Applicant	Tritle Tritle		Date
Kussell	Crawley Envir	onmental Geologist	October 02, 1996
Notary Public Embosser Seal	State		County (Or City of St. Louis)
	Missouri		
	Subscribed and Sworn Before me, T	his	Greene
	2 Day Of Octob	ber 1996	Use Rubber Stamp Below
	Notary Public Signature	My Commission Expires	
	Dinast Crayheas	11-4-999	NINA I CRAIGHEAD NOTARY PUBLIC STATE OF MISSOURI
	Notary Public Name (Typed or Printe	ed)	GREENE COUNTY
	Nina I. Craighead		MY COMMISSION EXP NOV 4,1999
Approved By (Director's R	epresentative) - R. Vicanium	Date Approved ECE	Permit Number 22-96 Permit Number
MO 780-1327 (12-91)		~~ 00 () .	4 1996 Page 5 of 5







P.O. BOX 176 JEFFERSON CITY, MO 65102

TYPE OF PLAN (CHECK ONE):	Black Quaccy		
SHORT TERM, FOR ONE PERMIT YEAR	Black Owrry Site 6		
☑ LONG TERM, FOR PERIOD THROUGH DATE: 7-31-2007	Site. W		
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING (BY APPLICAN AND TOPOGRAPHY.	T OR PRIOR OPERATOR), INCLUDING SOIL, VEGETATION		
The site consist of 80 acres m.o.l. The site is cov	ered with cedar saplings and		
trees. Topography is very steep, hilly, and the top			
with cedars). An industrial area and commercial building cover about 10 acres,			
however, it is not active. The current mine acreage			
cleared of overburden. Area above highwalls has bee			
topography. No additional bonding is planned durin			
copography. No desirronal bonding is planned during	g 1992 OI 1993.		
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.			
A. TOPSOIL			
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COMMISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?		
Less than 4 INCH	ES YES OR X NO		
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVAL			
Following tree removal by dozing scrapers, haul tru	cks will be used to remove		
topsoil and overburden to a depth of 12" and the two	soils will be stockpiled		
in an area separate from other materials. Topsoil	removal will remain a minimum		
of 20' ahead of pit excavation.			
-			
	. /		
· 1			
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE AND PROTECTION			
Scrapers/haul trucks will deposit topsoil/overburder	n in segregated storage sites.		
If the mining operation is to be less than one (1)	vear the stockpiles will be		
covered Otherwise they will be seeded to control			

B. SPO		S AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL				
DESCRIB	Spoil placement will be outside the pit, industrial, and commercial areas. Berms will be built and shaped to prevent ingress to the highwall/pit area. As old portions of the mine become mined out the spoils will be evenly distributed over the pit area. Exterior slopes will be traversable. Some spoils may be used for fill material offsite depending on offsite location.					
	O MATER	IALS S AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED, WRITE "NONE" BELOW)				
		·				
	None					
	1150011					
		ATION (GIVE ALL DIMENSIONS IN FEET) N AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS				
	See ma	q				
YES	NO					
	×	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?				
	X	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of-way of any public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right of way, and in no case may the excavation be closer to the right of way than fifty feet or twenty-five feet plus one and one-half (1-½) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)				
	×	Will any excavation start at or within fifty feet (50') of any property line?				

Doviced	10/17/96	
REVISEU	10/11/90	

Permit #287

Black

 $R^{ECEIVE}_{OCI_{21}_{1996}}D$

Revised 10/1 //96	Permit #207	DIACK	1000
Reclamation Plan-10 CSR 40-10	0.020(2)(D)2.		1996 L
A. Revegetation (Attach addition	nal sheets, if needed)	RECIA	MATION -
Revegetation Mix #1	Purpose Or Land Use	Seeding Or Planting Time	
Α	Temporary Cover	As Needed	MORSIMMOD

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Smooth Bromegrass and	12			
Perennial Ryegrass	12			
or Fescue	25			
Annual Ryegrass	50			
Revegetation Mix #2	Purpose Or Land Use		Seeding O	r Planting Time
В	All Land uses exc	ept impoundments	Fall, Sp	ring & Frost

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
Ladino Clover or Crown Vetch	8		
Smooth Bromegrass	12		
Orchardgrass	12		•
Perennial Ryegrass	12		
Annual Ryegrass	50		

B. Grading

Describe Proposed Reclaimed Topography, Including Slopes

The spoil consist of soil horizons with greater than 25 percent fragments and waste rock. Typically all voids are filled with soil size particles resulting in a good root growth material. The spoil will be used to cover highwalls, create natural areas or to reduce the depth of the pit floor. Soil material with less than 25% fragments will be redistributed at a thickness of 12 inches on locations that are expected to have a udic (free draining) soil environment and slopes of 3:1 or less.

Areas exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with soil material after covering areas of lesser slope, these areas will always have at least 24 inches of root growth material. At no time will the slope of the material be artificially increased beyond that at which the material is naturally stable.

All other areas not exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with a layer of soil material, as available to a minimum thickness of 12 inches. The slopes will be 5:1 or less.

If an area is not conducive to vegetation it will be covered with coarse aggregate, (Examples: columnar weathering above a highwall, parking areas, spillways, etc).

C. Describe The General Sequence and Timing of the Following Activities

Grading

10 CSR 40-10.050(10)(A)

Grading will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

Replacement of Topsoil

10 CSR 40-10.050(10)(A)

Topsoil replacement will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

Revegetation

Initial revegetation will occur during the first year after grading and soil replacement.

Average Depth of Replaced Topsoil (Inches)

12 inches of soil material

D. Use of Land When Reclaimed	Estimat	ed Acres:
Estimated acreage of each land use below, after reclamation		
Wildlife (forest or other habitat with livestock excluded)		
Agriculture (pasture, cropland, and horticultural)		10
Development (residential, industrial, and recreational)	100	2
Water Impoundments (for wildlife, agricultural, or development)	ECEIVE	
MO 780-1327 (12-91)	OCT 0 4 1996 D	Page 4 of 5

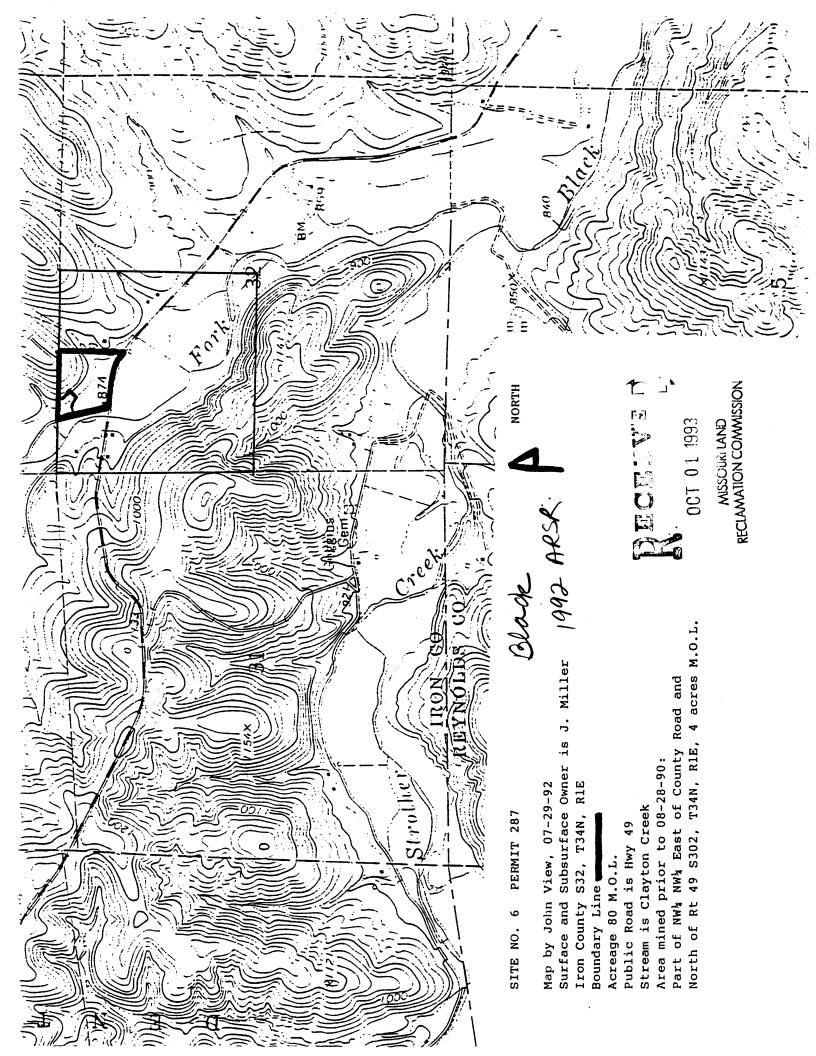
MISSOURI LAND
RECLAMATION COMMANGGION

By my signature, I attest to the following:

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Section 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowners for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

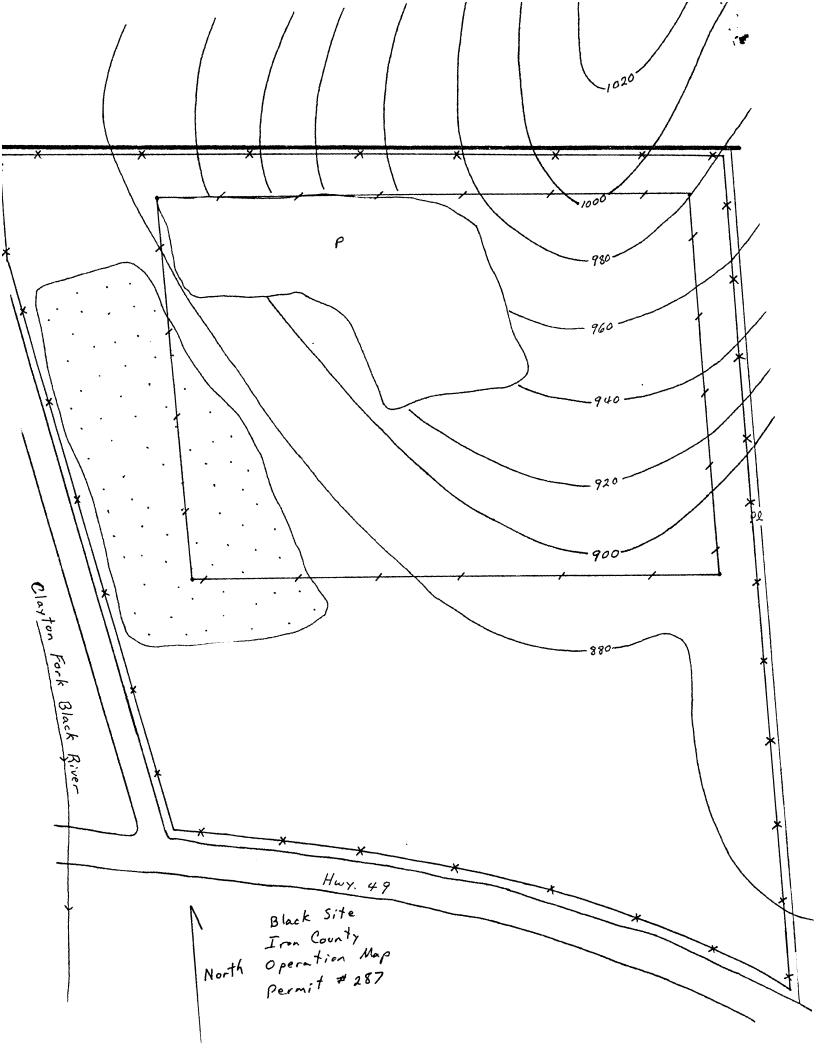
Leo Journagan Construction Company Black Quarry Permit 287

Signature of Applicant	_	Title				Date				
Ensell Car	Dez	+	Envir		October 1, 1996					
Notary Public Embosser Seal	State				County (Or C	ity of St. Louis)				
		Missouri								
	Subscribed	and Sworn Be	fore me, This	Greene						
	01	Day Of	October	1996	Use Rubber Stamp Below					
	Notary Pub	lic Signature		My Commission Expires		NINA I CRAIGHEAD				
	n	411-1 C	in Alend	11-4-99	NOTAR	Y PUBLIC STATE OF MISSOU GREENE COUNTY				
	Notary Pub	lic Name (Type	ed or Printed)	MY COMMISSION EXP NOV 4,1999						
	ł	Nina I.	Craighead							
Approved By (Director's R	(epresentative)			Date Approved		Permit Number				
Conna	R.	hemon	m	RECE 11-22	IVE	0287				
MO 780-1327 (12-91)				1 OCT 0 4	1996	Page 5 of 5				

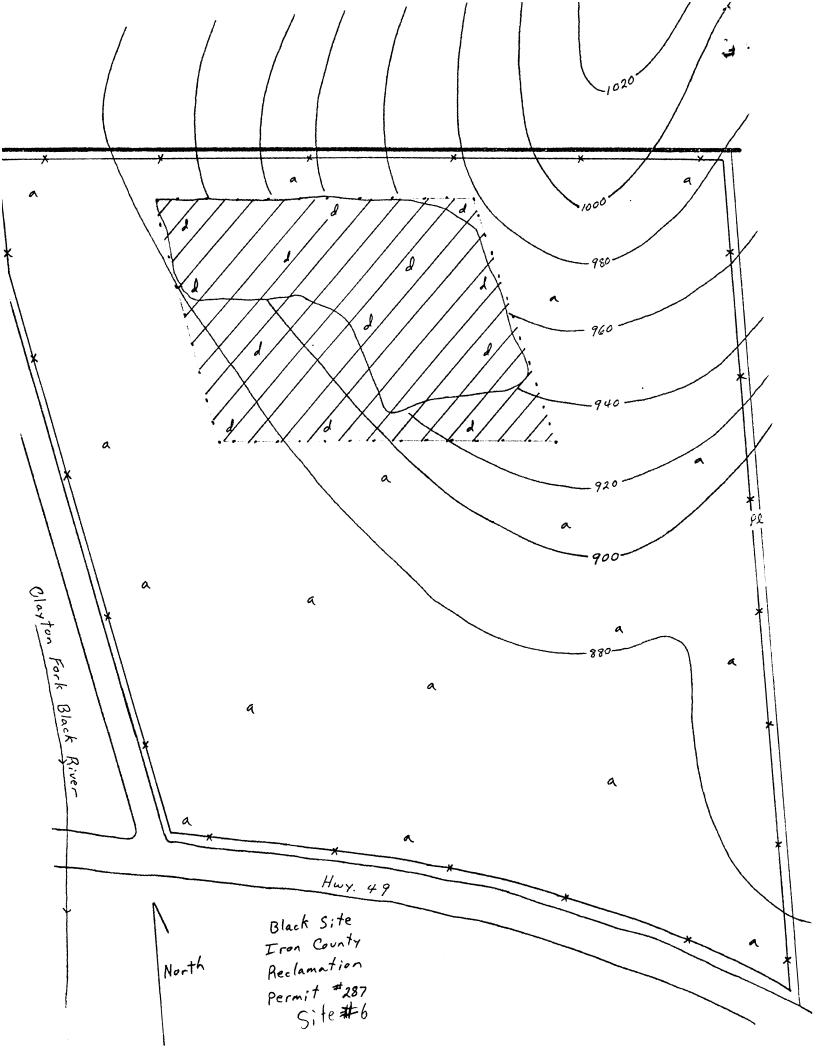


				LRP P	LRP Permit #287	
*	Long Term Plan	Leo Journa	gan Con	struction	eo Journagan Construction Company, Inc.	
	Permit Area	Site:	Black	e #	Iron County, Missouri	lissouri
		NW1/4 NW1/4 Section 32 T34N R01E	I/4 Sectio	n 32 T34	N R01E	
	Product Stockpiles	Map Edit:		Date	Revisers Initials	S
			RC			
۵	Active Pit					
,						
	,					
o	Stripped Area					
7	Drainage Pattem	_				
	NPDES Diversion					
,						
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\	Soil Stockpile					
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```	Spoil Disposal Area			Ober	Орегацоп мар	
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RECIAMATION COMMISSION



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LRP Permit #287	ls l	Black らげっせい ron County, Missouri	NW1/4 NW1/4 Section 32 T34N R01E		RC														Reclamation Map	<b>Scale:</b> 1 Inch = 100 Feet	1960 Voin: +	175 (000)	PECRIVE	7 961 F 8 136		
	Long Term Plan	Site: Sonded Area	NW1/4	Bond Released Map Edit:	96/2	Grading Completed		Tonsoil Benerol	וסטיסון אפיטומלפין		Impoundment		Development		Agriculture		Wildlife							Page 2		
Acres	12 *	2				O		  -	<b>-</b>	]		L	5 -		10 a		>									



1996 Permit Leo Journagan Construction Company, Inc. Black Site, Iron County Missouri म-भ REYNOLDS DEPARTMENT OF THE INTERIOR #Strother GEOLOGICAL SURVEY UNITED STATES 91,00, 4.02 4163 T. 34 N. T. 33 N. 4165000m N. WENE WAY

### MISSOURI DEPARTMENT OF NAT AL RESOURCES LAND RECLAMATION COMMISSION

### SITE INFORMATION FORM

### Revised 7/31/96

		71071000 770 1700	
To be completed for each separte area	of disturbance associated with	mining operations.	
SITE NAME OR NUMBER		PERMIT NUMBER	
Eudora Site \$17		287	
COMPANY NAME		201	
Leo Journagan Construction Company,	Ino		
	1/4 SECTION	SECTION	
	NW RANGE	ACRES 35	
	24W	23	
RIVER OR STREAM NAME (FOR IN-STREAM AC	JRES)		
MINERAL COMMODITY		TEOTIMATED TOMONIEAD (E)	D ODAVEL OFFICE
MINERAL COMMODITY		ESTIMATED TONS/YEAR (FO	JR GRAVEL SITES)
Limestone			
NAME OF LANDOWNER (ATTACH LIST IF MOR	E THAN ONE)		
·	E I HAN ONE)		
Billy G. Hayter ADDRESS			
ADDRESS			
3649 S. Broadway Av.			
CITY	STATE	Z	IP CODE
Springfield			65807
SOURCE OF RIGHT TO MINE (CHE 3/ C		D	ATE OF AGREEMENT
MINERAL DEED	🔀 LEASE		Apr-95
WARRANTY DEED	☐ VERBAL AG	DEEMENT	
_	- VERBAL AS		
OTHER(DESCRIBE):			<u></u>
MINERAL RIGHTS OWNER (ATTACH LIST IF M	ORE THAN ONE)	<u> </u>	
·	ONE THAN ONE)		
Billy G. Hayter ADDRESS			
ADDRESS			
3649 S. Broadway Av.			
CITY	1 A()	Z	IP CODE
	Missoun		65807
SOURCE OF RIGHT TO MINE (CHECK ONE):		D	ATE OF AGREEMENT
MINERAL DEED	LEASE		Apr-95
WARRANTY DEED	☐ VERBAL AG	DEEMENT	
	☐ VENDAL AG	INCLIFICN I	
OTHER(DESCRIBE):			
		DECE	ZIVED
NOTE: Each site must be shown on a r	map and be included in a public	notice and a approved	mine plan.
MO 780-1036 (12-91)		AUG (	N. Z.

### Page 1 of 5

Revised 07/31/96 Permit #287	Eudora
Missouri Department Of Natural Resources	P.O. Box 176
Land Reclamation Program	Jefferson City, MO 65102
Mine Plan	
Short Term, For One Permit Year	
Long Term, For Period Through Date: 31-Jul-07	
Description of Site Prior to Land Reclamation Commission Permitting (By Applica Topography.	nt or Prior Operator), Including Soil, Vegetation and
Vegetation: Equal amounts of unimproved pasture and hardw	ood forest.
Soil and Topography: <u>Blueye Series, 25%</u> : Very fine, mixed, mesic Typic Argiudoll, 7	percent slope.
A Horizon: 10 inches, gravelly silt loam, 30% fragments.	
B Horizon: 13 inches, gravelly clay, 30% fragments.	
Moko Series, 25%: Loamy-skeletal, mixed, mesic Lithic Haplud	doll, 20 percent slope.
A Horizon: 7 inches, very gravely silt loam, 45% fragments.	_
B Horizon: 5 inches, extremely flaggy silt loam, 60% fragment	S.
Goss Series, 50%: Clayey-skeletal, mixed, mesic Typic Paleud	lults, 20 percent slope.
A Horizon: 4 inches, gravely silt loam, 25% fragments.	
Eluvial zone: 12 inches, gravely silt loam, 60% fragments.	
B Horizon: 44 inches, very cobbly clay loam, 40% fragments.	
Operational Plan-10 CSR 40-10.020(2)(D)1.	
A. Topsoil	
Average Depth of Topsoil, Prior to Land Reclamation Commission Permitting	Is Topsoil to be Sold or Discarded Offsite?
	Yes or X No
Describe Methods and Equipment Used for Topsoil Removal	
Soil material will be removed with scrapers, loaders and dump tand B horizons to reduce the percent of rock fragments. Soil maked.	•
Describe incurous and Equipment Used for Topsoil Storage and Protection	perus .1
Soil material will be stockpiled within the permitted area and se soil material will be hauled directly to reclamation sites.	eded with Mix A to prevent erosion. If possible
	DECEIVED
	RECEIVED
	K . mar . son U
MO 780-1327 (12-91)	AUU Page 1 of 5

Pavicad	09/25/96

<b>Permit</b>	#287

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Fı	ıdo	ra

В.	Sp	0	il

Describe Methods and Locations of Spoil Placement and Disposal

Soil materials that contain excess fragments, lower soil horizons and waste rock will be refereed to as spoil. These materials will be used as a base below soil replacement areas, to reduce highwalls, stockpiled as construction fill or placed in permanent disposal areas. The disposal areas will be active for the entire life of the mine.

C.	Ac	id	Ma	ter	ia	S
•	7	.~	1114			. •

Describe Methods and Equipment Used for Handling Acid Material (If None is Anticipated, Write "None" Below)

None

### D. Pit Information (Give All Dimensions in Feet)

Describe Location and Orientation of Pit, If Not Clear on Site Maps

See Map

Yes	NO

Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?

Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of-way of any RECLAMATION COMMISSION start near the right-of-way, and in no case may the excavation be closer to the right-of-way than fifty feet or twenty-five feet plus one and one-half (1-1/2) times the depth of unconsolidated material, whichever is

greater, unless a variance is granted by the Commission.)

Will any excavation start at or within fifty feet (50') of any property line?

(NOTE: If the answer is "yes", a safety barrier may be needed.)

Page 2 of 5

Revise	d 1	0/1	7/96
(CVISC		$\cup$	1100

Permit #2 Permit #287

MISSOURI LAND

Willow Springs

Reclamation Plan-10 CSR 40-10.020(2)(D)2.

A. Revegetation (Attach additional sheets, if needed) Revegetation Mix #1

RECLAMATION COMMISSION Purpose Or Land Use Seeding Or Planting Time As Needed **Temporary Cover** 

Describe Methods and Equipment to be Used for Seeding or Planting

To be used on areas that will be disturbed repeatedly during the life of the mine.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre	
Smooth Bromegrass and	12				
Perennial Ryegrass	12				
or Fescue	25				
Annual Ryegrass	50				
Revegetation Mix #2	Purpose Or Land Use		Seeding Or F	Planting Time	
В	All land uses exce	All land uses except impoundments		Fall, Spring & Frost	

Describe Methods and Equipment to be Used for Seeding or Planting

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre		
Ladino Clover or	8				
Crown vetch					
Smooth Bromegrass	12				
Orchardgrass	12		1		
Perennial Ryegrass	12				
Annual Ryegrass	50				

Attach Additional Sheets For Additional Seed Mixes

Permit #287

Eugor

Reclamati	on	Plan-10	CSR	40-10	.020(2	2)(D	)2.

A. Revegetation (Attach additional sheets, if needed)

Revegetation Mix #3 Purpose Or Land Use Seeding Or Planting Time

C All Land uses except impoundments Winter and Spring

Describe Methods and Equipment to be Used for Seeding or Planting

The seed mix will be broadcast on areas with sufficient cover to prevent erosion that have been seeded with mix A or B. On areas where the soil is slightly acidic or has low fertility this mix is expected to become dominant.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecie <b>s</b>	Stems/Acre
Big Bluestem	3			
Indiangrass	3			
Little Bluestem	3			
Sideoats Grama	3			
Switchgrass (common)	3			
Forbs Mix	0.75			
Redtop	8			
Revegetation Mix #4	Purpose Or Land Use	Purpose Or Land Use		Planting Time
D	All land uses exce	All land uses except impoundments		

Describe Methods and Equipment to be Used for Seeding or Planting

Tree seedlings will be added to areas with sufficient cover to pervent erosion.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
		Jack Pine,	
		Red Pine,	
		Persimmon,	
		Red Mulberry,	700
		Hackberry,	
		Shrub Lespedeza and/or	
		Hazelnut	
			}

Attach Additional Sheets For Additional Seed Mixes



### **B.** Grading

Describe Proposed Reclaimed Topography, Including Slopes

The spoil consist of soil horizons with greater than 25 percent fragments and waste rock. Typically all voids are filled with soil size particles resulting in a good root growth material. The spoil will be used to cover highwalls, create natural areas or to reduce the depth of the pit floor. Soil material with less than 25% fragments will be redistributed at a thickness of 12 inches on locations that are expected to have a udic (free draining) soil environment and slopes of 3:1 or less.

Areas exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with soil material after covering areas of lesser slope, these areas will always have at least 24 inches of root growth material. At no time will the slope of the material be artificially increased beyond that at which the material is naturally stable.

All other areas not exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with a layer of soil material, as available to a minimum thickness of 12 inches. The slopes will be 5:1 or less.

If an area is not conducive to vegetation it will be covered with coarse aggregate, (Examples: columnar weathering above a highwall, parking areas, spillways, etc.).

### C. Describe The General Sequence and Timing of the Following Activities

Grading

10 CSR 40-10.050(10)(A)

Grading will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

Replacement of Topsoil

10 CSR 40-10.050(10)(A)

Topsoil replacement will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

Revegetation

Initial revegetation will occur during the first year after grading and soil replacement.

Average Depth of Replaced Topsoil (Inches)

12 inches of soil material

D. Use of Land When Reclaimed	Estimated Acres:
Estimated acreage of each land use below, after reclamation	·
Wildlife (forest or other habitat with livestock excluded)	23
VALIDITE (10163) OF OTHER Habital WAIT INVESTOCK Excluded)	
Agriculture (pasture, cropland, and horticultural)	
Development (residential, industrial, and recreational)	DECEIVED
Water Impoundments (for wildlife, agricultural, or development)	N OCT 4 4 1996

MO 780-1327 (12-91)

By my signature, I attest to the following:

Eudora #17

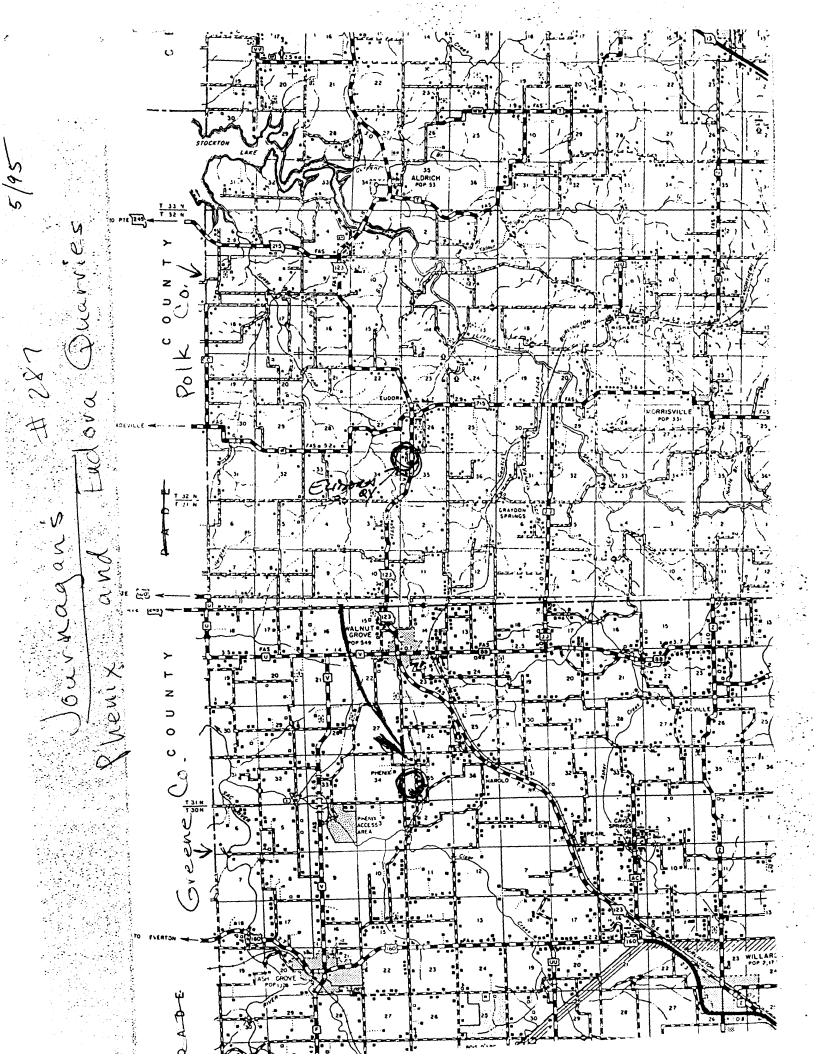
- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Section 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained ate approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and futher where I have no such right, I have attached signed affidavits from the landowneds, granting such access.

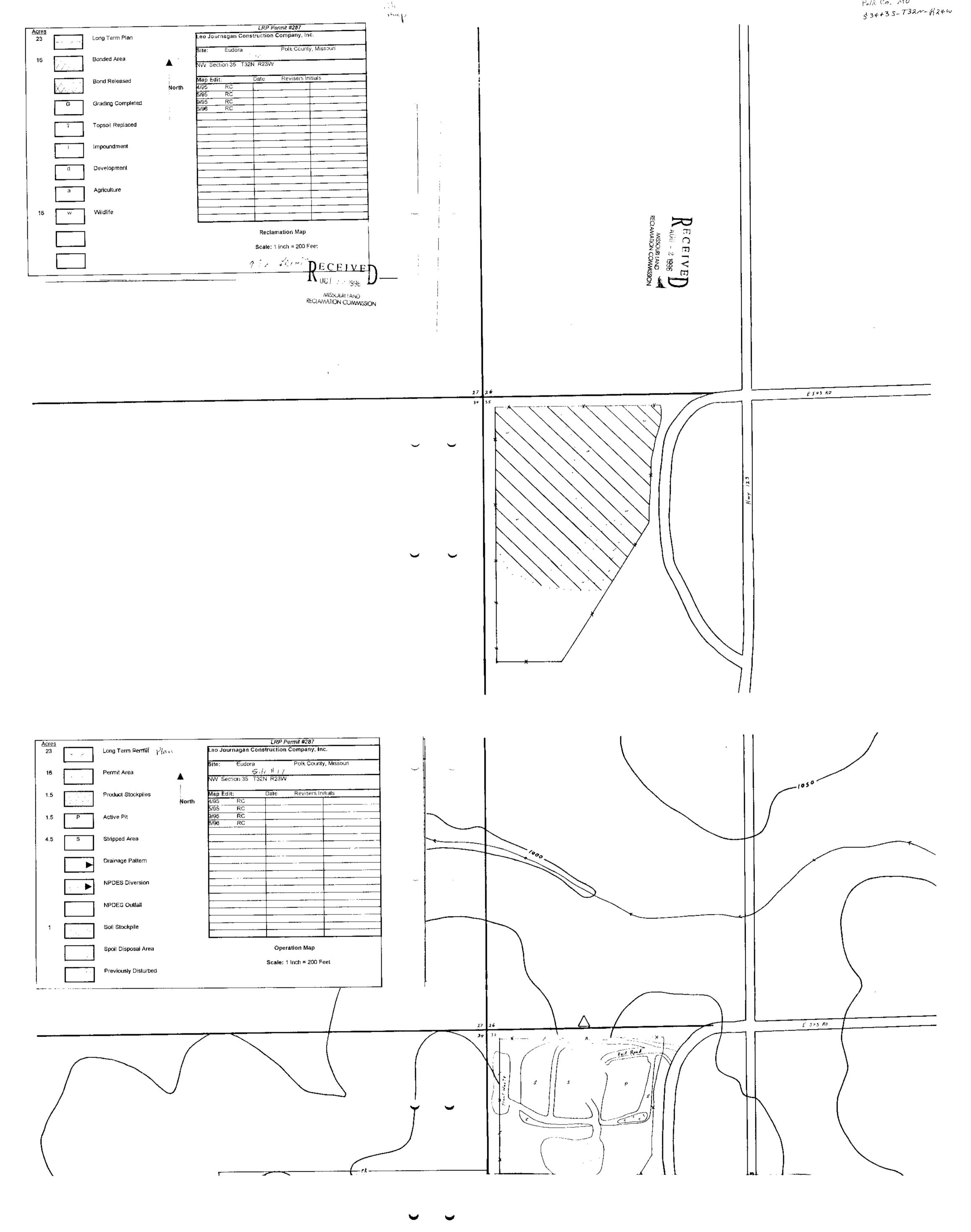
RECEIVED

MISSOURI LAND

RECLAMATION COMMISSION

Signature of Applicant  Kussell	Craw en Environm	ental Geologist	Date  July 31, 1996
Notary Public Embosser Seal	State Missouri Subscribed and Sworn Before me, This		County (Or City of St. Louis)  Greene
	31 Day Of July	1996	Use Rubber Stamp Below
	Notary Public Signature  Puna J Crughts  Notary Public Name (Typed or Printed)  Nina I. Craighead	My Commission Expires	NINA I CRAIGHEAD NOTARY PUBLIC STATE OF MISSOURI GREENE COUNTY MY COMMISSION EXP NOV 4,1999
Approved By (Director's R	epresentative)	Date Approved	Permit Number
Loma	R. Menour	11-22-	96 0287
MO 780-1327 (12-91)			Page 5 of 5





### MISSOURI DEPARTMENT OF NATURAL RESOURCES LAND RECLAMATION COMMISSION

### SITE INFORMATION FORM

SITE INFORMATION FORM			Revised 7/22/96	
To be completed for each separate	area of disturbance a	associated wi	th mining operations	S.
SITE NAME OR NUMBER		H 1	PERMIT NUMBER	
Gainesville	Site	m (		287
COMPANY NAME	, , ,			201
	<b>.</b>			
Leo Joumagan Construction Comp	any, Inc.		ISECTION .	
COONTY	1/4 SECTION		SECTION	
Ozark	NW NW ; NE NE		15 ; 16	
TOWNSHIP	RANGE		ACRES	
22N	14W		24; 36	
RIVER OR STREAM NAME (FOR IN-STREA			17-3	
MINERAL COMMODITY			ESTIMATED TONSA	EAR (FOR GRAVEL SITES)
				2 (. 3 3.322 323)
Limestone				
NAME OF LANDOWNER (ATTACH LIST IF	MODE THAN ONE)			
NAME OF EARDOWNER (ATTACHERST II	WORL THAN ONL)			
Leo Journagan Construction Comp	any, Inc.			
ADDRESS				
3003 E. Chestnut Suite 1200				
CITY	STATE			ZIP CODE
Springfield	Missouri			65804
SOURCE OF RIGHT TO MINE (CHECK ON				DATE OF AGREEMENT
MINERAL DEED	•			
MINERAL DEED		LEASE		Jun-05
X WARRANTY DEED		☐ VERBAL A	GREEMENT	
		_		
OTHER(DESCRIBE):				
MINERAL RICUTS OWNER (ATTACLLLICT	TE MODE THAN ONE)			
MINERAL RIGHTS OWNER (ATTACH LIST	IF MURE I HAN ONE)			
Leo Joumagan Construction Comp	any, Inc.			
ADDRESS				
3003 E. Chestnut Suite 1200				
CITY	STATE			ZIP CODE
Springfield	Missouri			
SOURCE OF RIGHT TO MINE (CHECK ON				DATE OF AGREEMENT
	, I			DATE OF MOREEWERT
MINERAL DEED		LEASE		Jun-05
WARRANTY DEED		□ VERRAL A	GREEMENT	
OTHER(DESCRIBE):				
NOTE: Each site must be shown o	n a map and be inclu	ded in a publ	ic notice and an an	royest mine plan.
MO 780-1036 (12-91)		·		THE TYELL
			1	VUUT U 4 1996 <b>D</b>
				4 1330



# MISSOURI DEPARTMENT ( IATURAL RESOURCES LAND RECLAMATION COMMISSION MINE PLAN

tile

P.O. BOX 176 JEFFERSON CITY, MO 65102

TYPE OF PLAN (CHECK ONE):

SHORT TERM, FOR ONE PERMIT YEAR

LONG TERM, FOR PERIOD THROUGH DATE:

7-31-2007

Gainesville

Guarry

5ite

7

DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING (BY APPLICANT OR PRIOR OPERATOR), INCLUDING SOIL, VEGETATION AND TOPOGRAPHY.

This site is approximately 73 acres m.o.l. Five acres is currently permitted.

This site is approximately 73 acres m.o.l. Five acres is currently permitted. There is about 8-10 acres of current industrial area operated by another corporation. The area has no topsoil to speak of. Topsoil is rocky throughout the site. The topography is hilly and sparsely covered by cedars. A highway forms the south boundary.

OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.		
A. TOPSOIL		
AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION	COMMISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?
	Less than 1 INCHES	YES OR X NO
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REA	MOVAL	1
Dozer will be used to remove ced	ar and other trees. To	psoil will be removed
. with sufficient amount of overbu	rden to maintain a nomi	nal 12" thickness for
replacement. Topsoil removal wi	ll remain a minimum of	20' ahead of pit
excavation.		

### DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE AND PROTECTION

Scrapers and haul trucks will be used to remove and store topsoil in segregated berms. The slopes of the temporary berms will shaped and the stockpile seeded to control erosion.

Revised 09/25/96	Permit #287	Gainesville	
B. Spoil			_
Describe Methods and Locations of Spoil F	lacement and Disposal		
These materials will be used as a	a base below soil replacement are	nd waste rock will be referred to as spoil. as, to reduce highwalls, stockpiled as sal areas will be active for the entire life of	
C. Acid Materials			
	or Handling Acid Material (If None is Anticipa	ited Write "None" Below)	
None			
D. Pit Information (Give All Dir	nensions in Feet)		
Describe Location and Orientation of Pit, I See Map	f Not Clear on Site Maps		
Yes No  X Will any excavation be at o	or within fifty feet (50') of the right-of-way of a	any public road?	
public road? (NOTE: Fo start near the right-of-way or twenty-five feet plus or	ng of unconsolidated materials be left within for unconsolidated materials left in place, a slow, and in no case may the excavation be closure and one-half (1-1/2) times the depth of undersignated by the Commission.)	ope of no more than forty degrees may er to the right-of-way than fifty feet	
	at or within fifty feet (50') of any property lines "yes", a safety barrier may be needed.)	RECEIVED	
MO 780-1327 (12-91)		Page 2 of 5	

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OCT 21 1996	
" 70' % I 1996 I	

Pavised 10/17/96	Permit #287

Gainesville

MISSOURI LAND RECLAMATION COMMISSION

Reclamation	Plan-10	CSR	40-10	0.020	(2)(D)	)2.	
A. Revegetati	on (Att	ach a	dditie	onal s	sheet	ts, i	fr

needed) Revegetation Mix #1 Purpose Or Land Use

Seeding Or Planting Time

**Temporary Cover** 

As Needed

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Smooth Bromegrass and	12			
Perennial Ryegrass	12			
or Fescue	25			
Annual Ryegrass	50			
Revegetation Mix #2	Purpose Or Land Use		Seeding Or F	lanting Time
В	All land uses exce	All land uses except impoundments		ng & Frost

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
Ladino Clover or	8		
Crown Vetch			
Smooth Bromegrass	12		
Orchardgrass	12		
Perennial Ryegrass	12		
Annual Ryegrass	50		

Revised 10/10/96	Permit #287	Gainesville	
Reclamation Plan-10 CS	R 40-10.020(2)(D)2.		
A. Revegetation (Attach	additional sheets, if needed)		
Revegetation Mix #3	Purpose Or Land Use	Seeding Or Planting Time	
C	All Land uses except impoundments	Winter and Spring	

Describe Methods and Equipment to be Used for Seeding or Planting

The seed mix will be broadcast on areas with sufficient cover to prevent erosion that have been seeded with mix A or B. On areas where the soil is slightly acidic or has low fertility this mix is expected to become dominant.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies Stems/Acre
Big Bluestem	3		
Indiangrass	3		
Little Bluestem	3		
Sideoats Grama	3		
Switchgrass (common)	3		
Forbs Mix	0.75		!
Redtop	8		
Revegetation Mix #4	Purpose Or Land Use		Seeding Or Planting Time
D	All land uses exce	pt impoundments	Spring

Describe Methods and Equipment to be Used for Seeding or Planting

Tree seedlings will be added to areas with sufficient cover to pervent erosion.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
		Jack Pine, Red Pine, Persimmon, Red Mulberry, Hackberry, Shrub Lespedeza and/or Hazelnut	700

RECEIVED OCT 1 5 1996

### B. Grading

Describe Proposed Reclaimed Topography, Including Slopes

The spoil consist of soil horizons with greater than 25 percent fragments and waste rock. Typically all voids are filled with soil size particles resulting in a good root growth material. The spoil will be used to cover highwalls, create natural areas or to reduce the depth of the pit floor. Soil material with less than 25% fragments will be redistributed at a thickness of 12 inches on locations that are expected to have a udic (free draining) soil environment and slopes of 3:1 or less.

Areas exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with soil material after covering areas of lesser slope, these areas will always have at least 24 inches of root growth material. At no time will the slope of the material be artificially increased beyond that at which the material is naturally stable.

All other areas not exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with a layer of soil material, as available to a minimum thickness of 12 inches. The slopes will be 5:1 or less.

If an area is not conducive to vegetation it will be covered with coarse aggregate, (Examples: columnar weathering above a highwall, parking areas, spillways, etc.).

### C. Describe The Ceneral Sequence and Timing of the Following Activ

Grading

10 CSR 40-10.050(10)(A)

Grading will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

Replacement of Topsoil

10 CSR 40-10.050(10)(A)

Topsoil replacement will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

Revegetation

Initial revegetation will occur during the first year after grading and soil replacement.

Average Depth of Replaced Topsoil (Inches)

12 inches of soil material

### D. Use of Land When Reclaimed

Estimated acreage of each land use below, after reclamation

Estimated Acres:

Wildlife (forest or other habitat with livestock excluded)

Agriculture (pasture, cropland, and horticultural)

Development (residential, industrial, and recreational)

Water Impoundments (for wildlife, agricultural, or development)

MISSOURI LAND

RECLAMATION COMMISSION

53

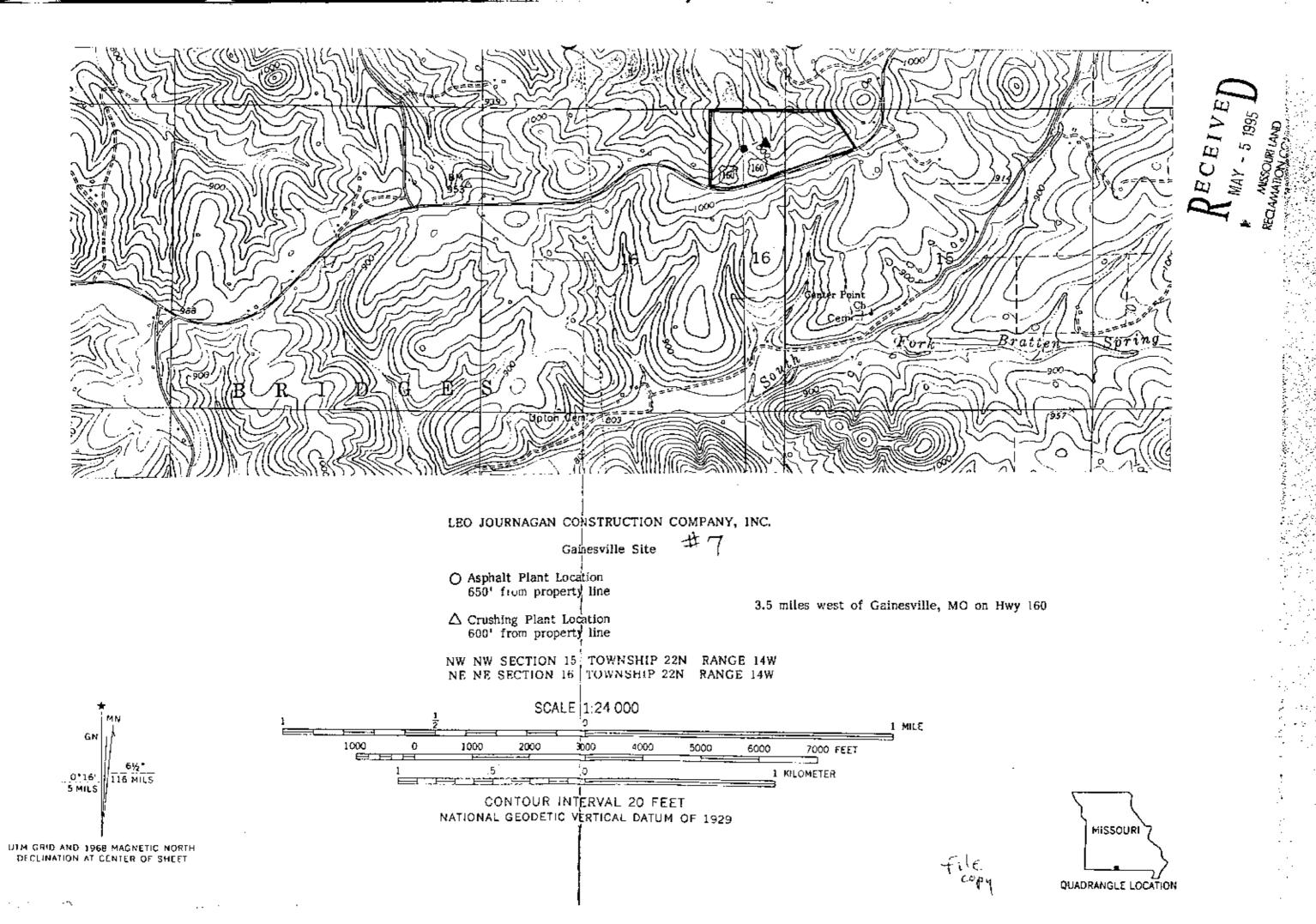
Page 4 of 5

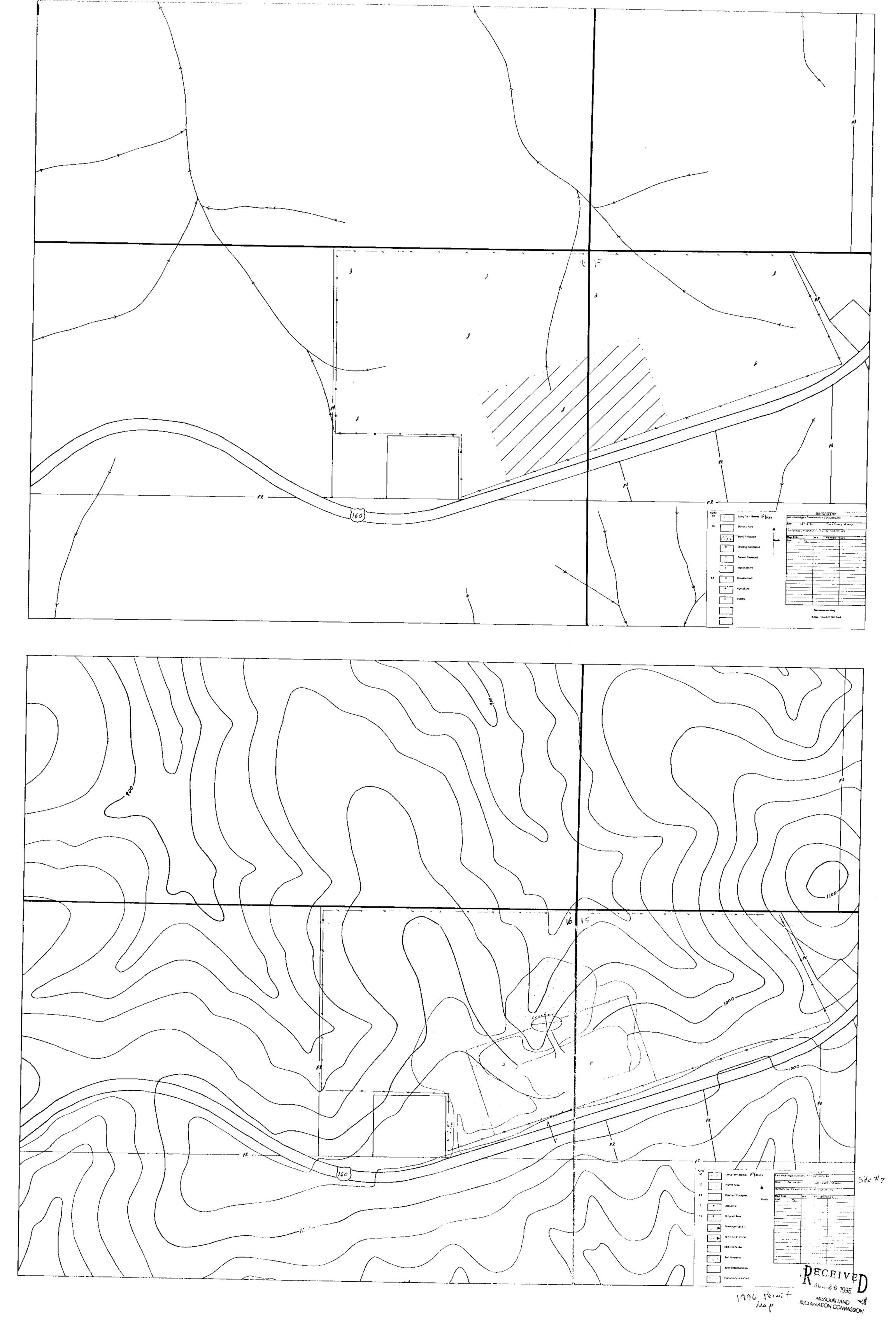
### By my signature, I attest to the following:

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Section 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowners for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

Leo Journagan Construction Company Gainesville Quarry Permit 287

Signature of Applicant		Title				Date
Russell Cra	mlez		Envir	onmental Geologist		October 1, 1996
Notary Public Embosser Seal	State				County (Or Cit	y of St. Louis)
		Missouri				
	Subscribed	d and Sworn Be	fore me, This		7	Greene
	01	Day Of	October	1996	Use Rubber S	Stamp Below
	Notary Pub	olic Signature		My Commission Expires		
	Min	v J Ca	right	11-4-99	NOTAR	NINA I CRAIGHEAD Y PUBLIC STATE OF MISSOUR
	Notary Put	olic Name (Type Nina I.	ed or Printed)  Craighead		MY CO	GREENE COUNTY MMISSION EXP NOV 4,1999
Approved By (Director's R	j.	. William	tw., o	Date Approved ECE	IVE	Permit Number
MO 780-1327 (12-91)					<del>± 1330</del>	Page 5 of 5





## MISSOURI DEPARTMENT OF NATIONAL RESOURCES LAND RECLAMATION COMMISSION



### SITE INFORMATION FORM

To be completed for each separte area	a of disturbance as	ssociated with	mining operations.	MISSOURI LAND
SITE NAME OR NUMBER			PERMIT NUMBER	AMATION COMMISSION
Hilda			287	7
COMPANY NAME				
Leo Journagan Construction Company	v Inc			
COUNTY	1/4 SECTION		SECTION	
Tanay	SE	<b>=</b>	25	
Taney TOWNSHIP	RANGE		ACRES	
		.,		
23N RIVER OR STREAM NAME (FOR IN-STREAM)	ACRES) 19V	N	90	
THE CONTROL OF THE CO	AONEO,			
MINERAL COMMODITY			ESTIMATED TONS/YEAR	(FOR CRAVEL SITES)
MINERAL COMMODITY			ESTIMATED TONOTEAN	(FOR GRAVEL SITES)
Limestone			<u></u>	
NAME OF LANDOWNER (ATTACH LIST IF MC	DRE THAN ONE)			
	THE THIRT SITE,			
Jack Cole				
ADDRESS				
CITY	STATE			ZIP CODE
Forsyth	Missouri			65653
SOURCE OF RIGHT TO MINE (CHECK ONE):				DATE OF AGREEMENT
MINERAL DEED		<b>LEASE</b>		May-98
WARRANTY DEED		VERBAL AC	REFMENT	
			3NLLIVILIA I	
OTHER(DESCRIBE):	<u> </u>			
PARTERAL BIOLITO CIAMIED (ATTACLLI ICT IE	MODE TUAN ONE)			
MINERAL RIGHTS OWNER (ATTACH LIST IF	MORE I HAN ONE)			
Jack Cole				
ADDRESS				
CITY	STATE			ZIP CODE
Forsyth	Missouri			65653
SOURCE OF RIGHT TO MINE (CHECK ONE):				DATE OF AGREEMENT
MINERAL DEED		<b>X</b> LEASE		May-98
☐ WARRANTY DEED		VERBAL AC	GREEMENT	
OTHER(DESCRIBE):				<del></del>
NOTE: Each site must be shown on a	a map and be inclu	uded in a publi	c notice and an approv	/ed mine plan.

MO 780-1036 (12-91)

Missouri Department Of Natural Resources		P.O. Box 176
and Reclamation Program		Jefferson City, MO 65102
Mine Plan	Hilda	- <u> </u>
Short Term, For One Permit Year	94 11 67	
Long Term, For Period Through Date:	31-Jul-07	
Description of Site Prior to Land Reclamation Co Topography.	mmission Permitting (By Applicar	nt or Prior Operator), Including Soil, Vegetation and
Vegetation: Eastern Redcedar and h	ardwood forest	
Soil and Topography:	idi divoca forost.	
	nv Skeletal, mixed, mesic l	Lithic Hapludolls, 3 to 15 percent slope.
A Horizon: 0-3 inches, black very flag	•	• • •
B Horizon: 3-8 inches, black very flag	ggy fine sandy loam, 30 pe	ercent fragments.
Bedrock: hard dolomite		
I		Drans
		NECRIVED
ı		RECEIVED MAY 1 8 1998
		- WAY 1 8 1998 <b>D</b>
		MISSOURI LAND
		RECLAMATION COMMISSION
Operational Plan-10 CSR 40-10.020(	2)(D)1.	
A. Topsoil		
Average Depth of Topsoil, Prior to Land Reclama	tion Commission Permitting	Is Topsoil to be Sold or Discarded Offsite?
	2 Inches	Yes or X No
Describe Methods and Equipment Used for Tops	soil Removal	
Sail material will be removed with sore	more leaders and dumm tr	woke. The sail material may be a combination
	•	rucks. The soil material may be a combination
	_	Soil material with less that 25% fragments
	or topson. An other overbu	ırden materials will be utilized to construct a
safety berm along the property line.		
Describe Methods and Equipment Used for Tops	soil Storage and Protection	
	on storage and restaurant	
Soil material will be stockpiled within the	he permitted area and see	ded with Mix A to prevent erosion. If possible
soil material will be hauled directly to r	eclamation sites	
•		

Page 1 of 5

Describe Methods and Locations of Spoil Placement and Disposal

Soil materials that contain excess fragments, lower soil horizons and waste rock will be referred to as spoil. These materials will be used as a base below soil replacement areas, to reduce highwalls, stockpiled as construction fill or used to construce perimeter safety berms. The disposal areas will be active for the entire life of the mine.



C	Δ	ci	Ы	N	lai	ter	·ia	le

Describe Methods and Equipment Used for Handling Acid Material (If None is Anticipated, Write "None" Below)

None

### D. Pit Information (Give All Dimensions in Feet)

Describe Location and Orientation of Pit, If Not Clear on Site Maps

See Map

Yes	No X	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?
L	X	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of-way of any public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right-of-way, and in no case may the excavation be closer to the right-of-way than fifty feet or twenty-five feet plus one and one-half (1-1/2) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)
	X	Will any excavation start at or within fifty feet (50') of any property line? (NOTE: If the answer is "yes", a safety barrier may be needed.)

### Reclamation Plan-10 CSR 40-10.02v(2)(D)2.

A. Revegetation (Attach additional sheets, if needed)

Revegetation Mix #1 Purpose Or Land Use Seeding Or Planting Time

A Temporary Cover As Needed

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.



MISSOURI LAND RECLAMATION COMMISSION

Seeded Species	Pounds/Acre	Tree or Shrub Sp	pecies	Stems/Acre
Smooth Bromegrass and	12			
Perennial Ryegrass	12			
or Fescue	25			
Annual Ryegrass	50			
Revegetation Mix #2	Purpose Or Land Use		Seeding Or	Planting Time
В	All land uses exce	pt impoundments	-	ring & Frost

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Pounds/Acre	Tree or Shrub Species	Stems/Acre
8		
12		
12		
12		
50		
	8 12 12 12	8 12 12 12

Attach Additional Sheets For Additional Seed Mixes

	Pε it #287	F 3	
Reclamation Plan-10 CS	SR 40-10.02v(2)(D)2.		
A. Revegetation (Attach	additional sheets, if needed)		
Revegetation Mix #3	Purpose Or Land Use	Seeding Or Planting Time	
С	All Land uses except impoundments	Winter and Spring	

Describe Methods and Equipment to be Used for Seeding or Planting

The seed mix will be broadcast on areas with sufficient cover to prevent erosion that have been seeded with mix A or B. On areas where the soil is slightly acidic or has low fertility this mix is expected to become dominant.

All species are not expected to survive on all sites due to differing micro-environments. The mixes Intended to provide a plant community that will protect from erosion, aid in soil generation and ancourage the reestablishment of native species.

MISSOURI LAND RECLAMATION COMMISSION

Seeded Species	Pounds/Acre	Tree or Shrub Sp	oecies	Stems/Acre
Big Bluestem	3			
Indiangrass	3			
Little Bluestem	3			
Sideoats Grama	3			
Switchgrass (common)	3	ļ		
Forbs Mix	0.75			i
Redtop	8			
Revegetation Mix #4	Purpose Or Land Use		Seeding C	or Planting Time
D	All land uses exce	pt impoundments	Spring	

Describe Methods and Equipment to be Used for Seeding or Planting

Tree seedlings will be added to areas with sufficient cover to pervent erosion.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
		Jack Pine, Red Pine,	
		Persimmon,	700
	·	Red Mulberry, Hackberry,	700
	1	Shrub Lespedeza and/or Hazelnut	
_			

### B. Grading

Describe Proposed Reclaimed Topography, Including Slopes

This site does not have an average of 12 inches of soil material available. However, all vegetated areas will have 12 inches of soil replaced. Soil material with less than 25% fragments will be redistributed at a thickness of 12 inches on locations that are expected to have a udic (free draining) soil environment and slopes of 3:1 or less. Typically development landuses do not require large percentages of the area to be revegetated.

The spoil consist of soil horizons with greater than 25 percent fragments and waste rock. Typically all voids are filled with soil size particles resulting in a good root growth material. The spoil will be used to build safety berms, create natural areas or to reduce the depth of the pit floor.

Areas exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with soil material after covering areas of lesser slope, these areas will always have at least 24 inches of root growth material (spoil). At no time will the slope of the material be artificially increased beyond that at which the material is naturally stable.

If an area is not conducive to vegetation it will be covered with coarse aggregate, (Examples: columnar weathering above a highwall, parking areas, spillways, etc.).

### Grading

### 10 CSR 40-10.050(10)(A)&(C)

Grading will be completed within twelve (12) months after the expiration or renewal of the permit on areas that are no longer needed as a part of the active operation of the site.

### Replacement of Topsoil

### 10 CSR 40-10.050(10)(A)

Topsoil replacement will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site. Areas receiving soil replacement will have soil 12 inches thich.

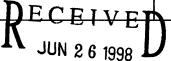
### Revegetation

Initial revegetation will occur during the first year after grading and soil replacement.

Average Depth of Replaced Topsoil (Inches)

#### 12 inches of soil material

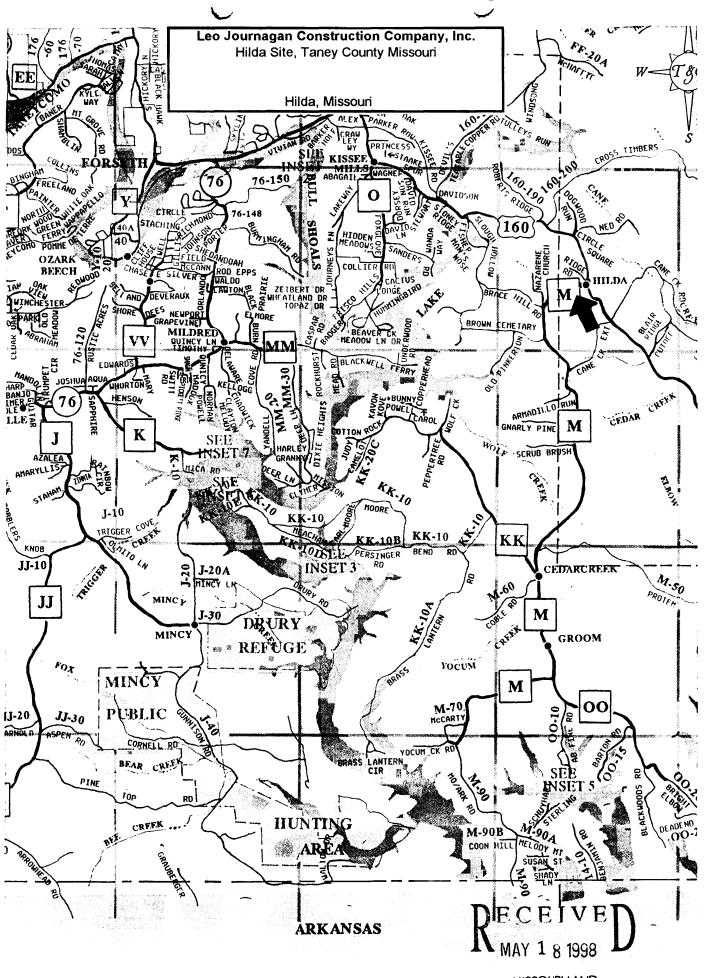
12 iliches of son material		
D. Use of Land When Reclaimed	Estimated Acres:	
Estimated acreage of each land use below, after reclamation		
Wildlife (forest or other habitat with livestock excluded)		
Agriculture (pasture, cropland, and horticultural)		
Development (residential, industrial, and recreational)	90	

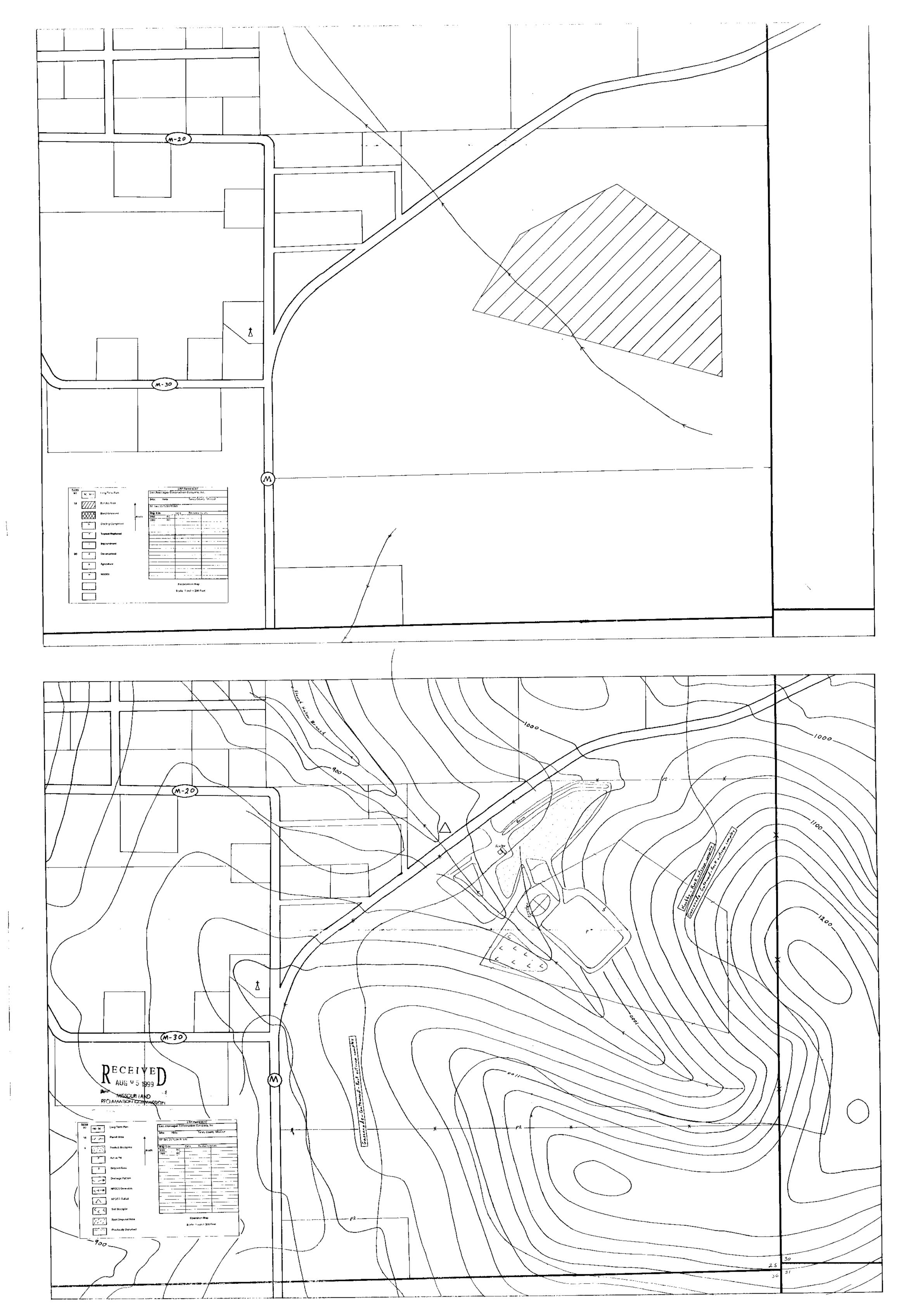


- By my signature, I attest to the following:
  - 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
  - 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Section 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
  - 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
  - 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and futher where I have no such right, I have attached signed affidavits from the landowneds, granting such access.



Signature of Applicant	ander Envir	onmental Geolog	gist	Date May 13 1998
Notary Public Embosser Seat	State		County (Or C	ity of St. Louis)
	Subscribed and Sworn Before me, This  13 Day Of May	1998	Use Rubber	الله عند الله الله الله الله الله الله الله الل
	Notary Public Signature  Nings I. Craighing	My Commission Expires  //- 4 - 99	NOTA	NINA I CRAIGHEAD ARY PUBLIC STATE OF MISSOUI
	Notary Public Name (Typed or Printed)  Nina Z raig	head	7	GREENE COUNTY COMMISSION EXP NOV 4,1999
Approved By (Director's Re		Date Approved	98	Permit Number
MO 780-1327 (12-91)				Page 5 of 5





to be completed for each separa	ate area of disturbance associated with	mining operations.
SITE NAME OR NUMBER		IT NUMBER
4	Hollister North	287
COMPANY NAME		
Leo Journagan Cons	truction Company, Inc.	
COUNTY	1/4 SECTION	SECTION
Taney	NE,SW	17 & 20
TOWNSHIP	RANGE	ACRES
22N	2 1W	116
IIVER OR STREAM NAME (FOR IN-STR	REAM ACRES)	
NA		
MINERAL COMMODITY	ESTIN	MATED TONS/YEAR (FOR GRAVEL SITES)
Limestone		NA
WANT OF LANDOWNER (ATTACK)	UE MODE THAN ONE	
NAME OF LANDOWNER (ATTACH LIST		
	truction Company, Inc.	
ADDRESS		
3003 East Chestnut	Expressway, Suite 1200	
CITY	STATI	ZIP CODE
Springfield		Missouri 65802
SOURCE OF RIGHT TO MINE (CHECK		DATE OF AGREEMENT
SOURCE OF RIGHT TO MINE (CHECK OF MINERAL DEED	ONE):	DATE OF AGREEMENT
SOURCE OF RIGHT TO MINE (CHECK		DATE OF AGREEMENT
SOURCE OF RIGHT TO MINE (CHECK OF MINERAL DEED	□ LE	DATE OF AGREEMENT NA
SOURCE OF RIGHT TO MINE (CHECK OF MINERAL DEED  WARRANTY DEED	□ LE	DATE OF AGREEMENT NA
SOURCE OF RIGHT TO MINE (CHECK OF MINERAL DEED  WARRANTY DEED	□ LE	DATE OF AGREEMENT NA
SOURCE OF RIGHT TO MINE (CHECK OF MINERAL DEED  WARRANTY DEED  OTHER (DESCRIBE):	□ LE	DATE OF AGREEMENT NA
SOURCE OF RIGHT TO MINE (CHECK OF MINERAL DEED  WARRANTY DEED  OTHER (DESCRIBE):	□ LE	DATE OF AGREEMENT NA
SOURCE OF RIGHT TO MINE (CHECK OF MINERAL DEED  WARRANTY DEED  OTHER (DESCRIBE):  MINERAL RIGHTS OWNER (ATTACH LIGHTS OWNER)	VE UST IF MORE THAN ONE)	DATE OF AGREEMENT NA
SOURCE OF RIGHT TO MINE (CHECK OF MINERAL DEED  WARRANTY DEED  OTHER (DESCRIBE):  MINERAL RIGHTS OWNER (ATTACH LIED JOURNAGEN CONSTANDESS	VE UST IF MORE THAN ONE)	DATE OF AGREEMENT NA
SOURCE OF RIGHT TO MINE (CHECK OF MINERAL DEED  WARRANTY DEED  OTHER (DESCRIBE):  MINERAL RIGHTS OWNER (ATTACH LIED JOURNAGEN CONSTANDESS  3003 East Chestnut	ST IF MORE THAN ONE) truction Company, Inc.	DATE OF AGREEMENT NA ERBAL AGREEMENT
MINERAL DEED  WARRANTY DEED  OTHER (DESCRIBE):  Leo Journagan Cons  ADDRESS  3003 East Chestnut	ST IF MORE THAN ONE) truction Company, Inc.  Expressway, Suite 1200	ERBAL AGREEMENT  EXAMPLE STATEMENT  EXAMPLE STATEMENT  EXAMPLE STATEMENT  EXAMPLE STATEMENT  ZIP CODE
MINERAL RIGHTS OWNER (ATTACH LE Leo Journagan Cons ADDRESS 3003 East Chestnut CITY Springfield	ST IF MORE THAN ONE) truction Company, Inc.  Expressway, Suite 1200	E ZIP CODE  Missouri 65802
MINERAL RIGHTS OWNER (ATTACH LI Leo Journagan Cons ADDRESS 3003 East Chestnut CITY Springfield SOURCE OF RIGHT TO MINE (CHECK)	ST IF MORE THAN ONE) truction Company, Inc.  Expressway, Suite 1200  STATE	ERBAL AGREEMENT  ERBAL AGREEMENT  EL ZIP CODE  Missouri  Missouri  Missouri  Mare of Agreement  Date of Agreement  Date of Agreement
SOURCE OF RIGHT TO MINE (CHECK OF MINERAL DEED  WARRANTY DEED  OTHER (DESCRIBE):  Leo Journagan Cons  ADDRESS  3003 East Chestnut  CITY  Springfield  SOURCE OF RIGHT TO MINE (CHECK OF MINERAL DEED	ST IF MORE THAN ONE) truction Company, Inc.  Expressway, Suite 1200  STATE ONE):	ERBAL AGREEMENT  ERBAL AGREEMENT  E ZIP CODE  Missouri 65802  DATE OF AGREEMENT  NA
SOURCE OF RIGHT TO MINE (CHECK OF MINERAL DEED  WARRANTY DEED  OTHER (DESCRIBE):  Leo Journagan Cons  ADDRESS  3003 East Chestnut  CITY  Springfield  SOURCE OF RIGHT TO MINE (CHECK OF MINERAL DEED  WARRANTY DEED	ST IF MORE THAN ONE) truction Company, Inc.  Expressway, Suite 1200  STATE ONE):	ERBAL AGREEMENT  ERBAL AGREEMENT  EL ZIP CODE  Missouri  Missouri  Missouri  Mare of Agreement  Date of Agreement  Date of Agreement

### Page 1 of 5



Missouri Department Of Land Reclamation Prog			P.O. Box 176  Jefferson City, MO 65102	RECLAVVAII
Mine Plan	Revised 7/18/96	Permit #287	Hollister North	
Short Term, For Or Long Term, For Pe		31-Jul-07		
Description of Site Prior			nt or Prior Operator), Including Soil, Vegetation	and
Topography.				
Vegetation: Hard				
Soil and Topogra				
	<u>s, 50%</u> :  Cleyey-skeletal es, very flaggy clay loar	•	oii, 35 percent slope.	
	ches, very gravelly clay i			
Catanas d Carias	FOOL: Name fine and read	Timis Hankidak Cus		
	<u>. 50%</u> :  Very-fine, mixed nes, very gravelly silt loa		rcent slope.	
1	ches, gravelly clay loam			
1				
1				
Operational Plan	-10 CSR 40-10.020(2)(D	0)1.		
A. Topsoil	· · · · · · · · · · · · · · · · · · ·	<b>1</b> :		
Average Depth of Topso	oil, Prior to Land Reclamation C	Commission Permitting 7 Inches	Is Topsoil to be Sold or Discarded Offsite?  Yes or  No	
Describe Methods and	Equipment Used for Topsoil Re			
Soil material will h	ne removed with scraner	s loaders and dumn	trucks. The A and B horizons may be	
1	=		al with less that 25% fragments will be	
	•		-	
ı				
Describe Methods and	Equipment Used for Topsoil St	torage and Protection		
			eded with Mix A to prevent erosion. If	possible
soil material will b	e hauled directly to recla	amation sites.		
ı				1

Revised 09/25/96	Permit #287	Hollister North
s. Spoil		
escribe Methods and Loca	ations of Spoil Placement and Disposal	
hese materials will l	oe used as a base below soil replaceme	zons and waste rock will be referred to as spoil. ent areas, to reduce highwalls, stockpiled as disposal areas will be active for the entire life of
. Acid Materials		
escribe Methods and Equ	ipment Used for Handling Acid Material (If None is	Anticipated, Write "None" Below)
None		
. Pit Information (C	Give All Dimensions in Feet)	<del></del>
	entation of Pit, If Not Clear on Site Maps	
	•	
See <b>Map</b>		
		DECE
		RECEIVE
		RECEIVE OCT 9 4 1996
es No		907 ⁹ 4 1996 -
X Will any ex	cavation be at or within fifty feet (50') of the right-of	-way of any public road?
X Will any hi	ghwall consisting of unconsolidated materials be le	-way of any public road?  RECLAMATION COMMISSION FOR WITH WITH THE PROPERTY OF
public roa	ad? (NOTE: For unconsolidated materials left in pla	
start near	the right-of-way, and in no case may the excavation	n be closer to the right-of-way than fifty feet
or twenty-	five feet plus one and one-half (1-1/2) times the de	pth of unconsolidated material, whichever is
greater, ur	nless a variance is granted by the Commission.)	
* * * * * * * * * * * * * * * * * * * *	excavation start at or within fifty feet (50') of any pro	
(NOTE:	If the answer is "yes", a safety barrier may be need	led.)

Revised	10/17/96

Permit #287

Hollister North

	$\frac{\binom{ECEIVE}{0CI}}{\binom{ECEIVE}{1996}}$
- T	~ 1000 l
**	~ 199c

Reclamation	Plan-10	CSR 40-	10.020(2	(D)2.

A. Revegetation (Attach addition	onal sheets, if needed)	RECIAL MISSOLIDA	4
Revegetation Mix #1	Purpose Or Land Use	Seeding Or Planting Time	
Α	Temporary Cover	As Needed COMMISSION	<b>)</b> A (

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Smooth Bromegrass and	12			
Perennial Ryegrass	12			
or Fescue	25			
Annual Ryegrass	50			
Revegetation Mix #2	Purpose Or Land Use		Seeding O	r Planting Time
В	All land uses exce	ept impoundments	Fall, Sp	ring & Frost

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Pounds/Acre	Tree or Shrub Species	Stems/Acre
8		
12		
12		
12		
50		
	8 12 12 12	8 12 12 12

Describe Methods and Equipment to be Used for Seeding or Planting

The seed mix will be broadcast on areas with sufficient cover to prevent erosion that have been seeded with mix A or B. On areas where the soil is slightly acidic or has low fertility this mix is expected to become dominant.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Big Bluestem	3			
Indiangrass	3			
Little Bluestem	3			
Sideoats Grama	3			
Switchgrass (common)	3			
Forbs Mix	0.75			
Redtop	8			
Revegetation Mix #4	Purpose Or Land Use	Purpose Or Land Use		Planting Time
D	All land uses exce	All land uses except impoundments		

Describe Methods and Equipment to be Used for Seeding or Planting

Tree seedlings will be added to areas with sufficient cover to pervent erosion.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre	
		Jack Pine,		
		Red Pine,		
		1	}	
		Persimmon,	700	
	1	Red Mulberry,	700	
		Hackberry,		
	1	Shrub Lespedeza and/or		
		Hazelnut		

RECEIVED

### B. Grading

MO 780-1327 (12-91)

Describe Proposed Reclaimed Topography, Including Slopes

The spoil consist of soil horizons with greater than 25 percent fragments and waste rock. Typically all voids are filled with soil size particles resulting in a good root growth material. The spoil will be used to cover highwalls, create natural areas or to reduce the depth of the pit floor. Soil material with less than 25% fragments will be redistributed at a thickness of 12 inches on locations that are expected to have a udic (free draining) soil environment and slopes of 3:1 or less.

Areas exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with soil material after covering areas of lesser slope, these areas will always have at least 24 inches of root growth material. At no time will the slope of the material be artificially increased beyond that at which the material is naturally stable.

All other areas not exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with a layer of soil material, as available to a minimum thickness of 12 inches. The slopes will be 5:1 or less.

If an area is not conducive to vegetation it will be covered with coarse aggregate, (Examples: columnar weathering above a highwall, parking areas, spillways, etc.).

C. Describe The General Sequence and Timing of the Follow Grading	ving Activities
10 CSR 40-10.050(10)(A)&(C)	
Grading will be completed within twelve (12) months after the ex	piration or renewal of the permit on areas no
longer needed as a part of the active operation of the site.	
Replacement of Topsoil	
10 CSR 40-10.050(10)(A)	
Topsoil replacement will be completed within twelve (12) months	s after the expiration or renewal of the permit
on areas no longer needed as a part of the active operation of the	ne site.
Revegetation	
Initial revegetation will occur during the first year after grading a	nd soil replacement.
Average Depth of Replaced Topsoil (Inches)	
12 inches of soil m	
D. Use of Land When Reclaimed	Estimated Acres:
Estimated acreage of each land use below, after reclamation	
Wildlife (forest or other habitat with livestock excluded)	
Agriculture (pasture, cropland, and horticultural)	
Development (residential, industrial, and recreational)	116
Water Impoundments (for wildlife, agricultural, or development)	K and a live

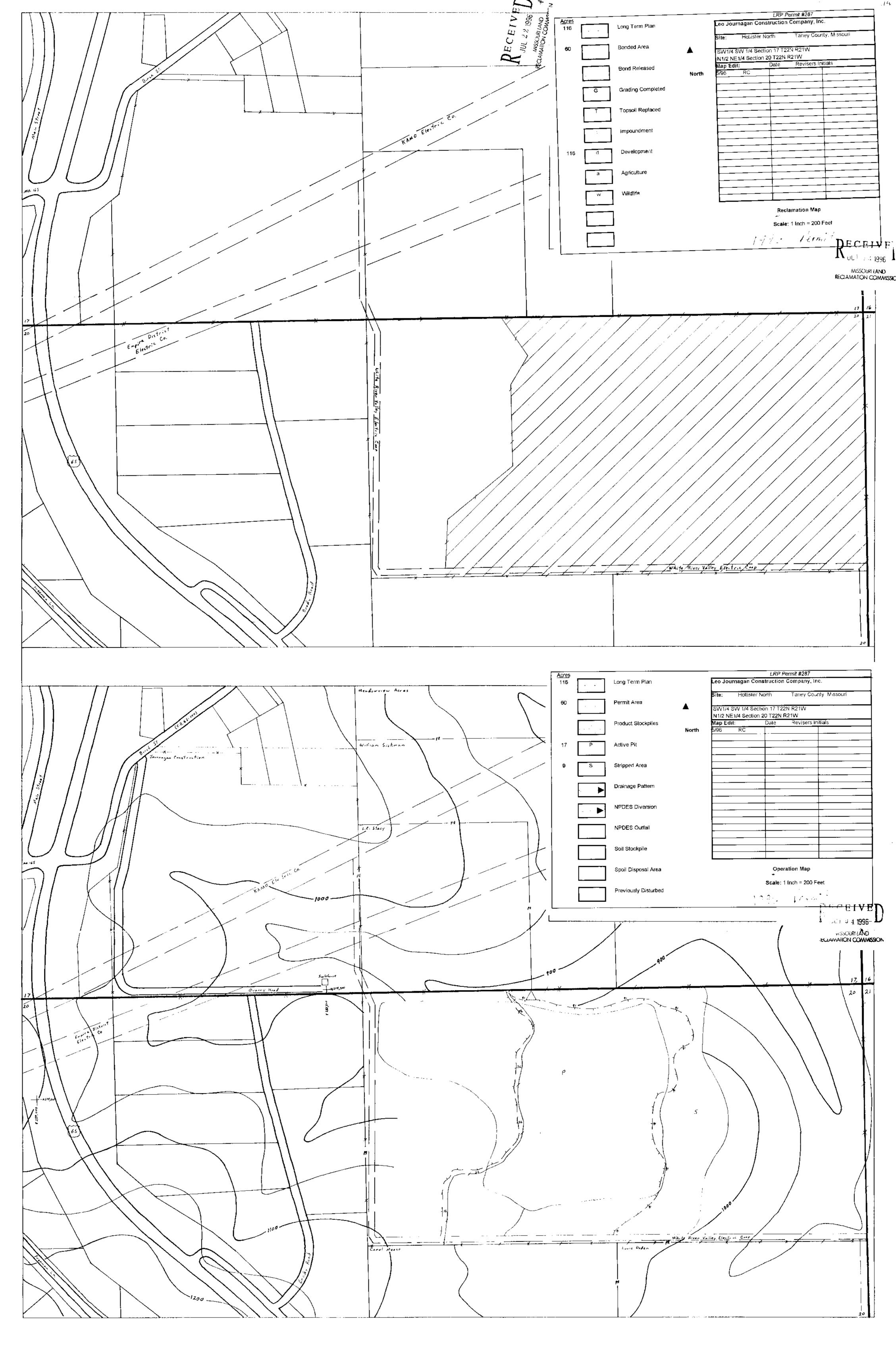
### By my signature, I attest to the following:

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Section 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and futher where I have no such right, I have attached signed affidavits from the landowneds, granting such access.

RECEIVED
JUL 22 1996
MISSOURI LAND
RECLAMATION COMMISSION

Signature of Applicant	Camber Environ	mental Geologist	7/18/96
Notary Public Embosser Seal	State  Subscribed and Sworn Before me This  Day Of  Notary Public Signature  Notary Public Name (Typed or Printed)	My Commission Expires	Use Rubber Stamp Below  NINA I CRAIGHEAD  NOTARY PUBLIC STATE OF MISSOUR  GREENE COUNTY  MY COMMISSION EXP NOV 4,1999
Approved By (Director's		Øate Approved  //- 2 2 − 9	96 Permit Number
MO 780-1327 (12-91)		-	Page 5 of 5







## SITE INFORMATION FORM

#### Revised 7/20/99

To be completed for each separte area	of disturbance assoc	ciated with	mining operations.		
SITE NAME OR NUMBER			PERMIT NUMBER		
Hollister South			287		
COMPANY NAME					
Leo Journagan Construction Company	Inc				
COUNTY	1/4 SECTION		SECTION		
Taney	N1/2 NE		31		
TOWNSHIP	RANGE		ACRES		
22N	21W		80		
RIVER OR STREAM NAME (FOR IN-STREAM A		· · ·	1 00		
MINERAL COMMODITY		<del></del>	ESTIMATED TONS/YEAR	(FOR GRAVEL SITES)	
l important				,	
Limestone			ļ <u></u>		
NAME OF LANDOWNER (ATTACH LIST IF MO	RE THAN ONE)				
Everett McFarland					
ADDRESS					
HCR 1 Box 219					
CITY	STATE			ZIP CODE	
	aa:				
Hollister SOURCE OF RIGHT TO MINE (CHECK ONE):	Missouri			65672 DATE OF AGREEMENT	
	l G	l			
MINERAL DEED	<b>V</b>	LEASE		Sep-94	
☐ WARRANTY DEED		VERBAL AGRE	EMENT		
OTHER(DESCRIBE):				<del></del>	
MINERAL RIGHTS OWNER (ATTACH LIST IF I	MORE THAN ONE)		-		
Everett McFarland					
ADDRESS					
HCR 1 Box 219					
CITY	STATE			IZIP CODE	
I lallinta				1	
Hollister SOURCE OF RIGHT TO MINE (CHECK ONE):	Missouri			DATE OF AGREEMENT	
	l .	l. = . c=			
MINERAL DEED	Ľ.	LEASE		Sep-94	
☐ WARRANTY DEED		VERBAL AGRE	EEMENT		
OTHER(DESCRIBE):				<del>-</del>	
NOTE: Each site asset to a training		d :=			
NOTE: Each site must be shown on a	map and be included	ın a public			
MO 780-1036 (12-91)			DECE	V H I I	

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MISSOURLIAND RECLAMATION COMMISSION

## SITE INFORMATION FORM

## Revised 7/20/99

To be completed for each separte are	a of disturbance associat	ed with mining oper	ations.
SITE NAME OR NUMBER		PERMIT NUM	BER
Hollister South			287
COMPANY NAME			
Leo Journagan Construction Compan	v Inc		
COUNTY	1/4 SECTION	<del>-</del>	
_			
Taney TOWNSHIP	SW & SE	ACRES	9
TOWNSHIP	RANGE	ACRES	
22N	21W		95
RIVER OR STREAM NAME (FOR IN-STREAM	ACRES)		
MINERAL COMMODITY		ESTIMATED	TONS/YEAR (FOR GRAVEL SITES)
Limestone			
		1	
NAME OF LANDOWNER (ATTACH LIST IF MO	ORE THAN ONE)		
  Leo Journagan Construction Compan	v Inc		
ADDRESS	y, mc.		
3003 E. Chestnut Suite 1200	IOTATE .		IZID CODE
CITY	STATE		ZIP CODE
Springfield	Missouri		65804
SOURCE OF RIGHT TO MINE (CHECK ONE):			DATE OF AGREEMENT
MINERAL DEED	☐ LEA	SE	Jan-94
✓ WARRANTY DEED	☐ VEF	RBAL AGREEMENT	
OTHER(DESCRIBE):			
MINERAL RIGHTS OWNER (ATTACH LIST IF	MORE THAN ONE)		
Leo Journagan Construction Compan	y, inc.		
3003 E. Chestnut Suite 1200	1 : : : : : : : : :-		
CITY	STATE		ZIP CODE
Springfield	Missouri		65804
SOURCE OF RIGHT TO MINE (CHECK ONE):			DATE OF AGREEMENT
MINERAL DEED	LEA	SE	Jan-94
✓ WARRANTY DEED	☐ VEF	RBAL AGREEMENT	
OTHER(DESCRIBE):			
			)ECEIVED
NOTE: Each site must be shown on	a map and be included in	a public notice and	
MO 780-1036 (12-91)			JUL 3 0 1999 D

MISSOURI LAND
RECLAMATION CONVISSION

## SITE INFORMATION FORM

#### Revised 7/20/99

To be completed for each separte area	a of disturbance	associated with	mining operations.		
SITE NAME OR NUMBER			PERMIT NUMBER		
Hollister South			287		
COMPANY NAME					
Leo Journagan Construction Company					
COUNTY	1/4 SECTION		SECTION		
Taney		SE	30		
TOWNSHIP	RANGE		ACRES		
22N		W	80		
RIVER OR STREAM NAME (FOR IN-STREAM	ACRES)				
MINERAL COMMODITY			ESTIMATED TONS/YEAR	(FOR GRAVEL SITES)	
Limestone			·		
NAME OF LANDOWNER (ATTACH LIST IF MO	DE THAN ONE)				
Leo Journagan Construction Company ADDRESS	, Inc.				
3003 E. Chestnut Suite 1200	STATE	······································		ZIP CODE	
Springfield SOURCE OF RIGHT TO MINE (CHECK ONE):	Missouri		· · · · · · · · · · · · · · · · · · ·	658 DATE OF AGREEMENT	
	I	_			
MINERAL DEED		LEASE		Jan	
☑ WARRANTY DEED		☐ VERBAL AGR	EEMENT		
OTHER(DESCRIBE):					
MINERAL RIGHTS OWNER (ATTACH LIST IF I	MORE THAN ONE)				
Leo Journagan Construction Company	, Inc.				
ADDRESS	·				
3003 E. Chestnut Suite 1200					
СІТҮ	STATE		_	P CODE	
Springfield	Missouri			658	
SOURCE OF RIGHT TO MINE (CHECK ONE):				DATE OF AGREEMENT	
MINERAL DEED		LEASE		Jan	
		<del></del>			
✓ WARRANTY DEED		VERBAL AGR	REEMENT		
OTHER(DESCRIBE):					
			DECE	IVED	
NOTE: Each site must be shown on a	map and be inc	luded in a publi			
MO 780 1036 (12.01)	· · · · · · · · · · · · · · · · · · ·	·	<del>- ▲                                   </del>	0 1999	

MO 780-1036 (12-91)

MISSOURI I AND
RECLAMATION COMMISSION

## SITE INFORMATION FORM

#### Revised 7/20/99

			Reviseu 1/20/99	
To be completed for each separte area	a of disturbance as	ssociated with	n mining operations.	
SITE NAME OR NUMBER			PERMIT NUMBER	
Hollister South			28	7
COMPANY NAME			· · · · · · · · · · · · · · · · · · ·	
  Leo Journagan Construction Company	, Inc			
COUNTY	1/4 SECTION		SECTION	
Taney	NW I	I\A/	32	
TOWNSHIP	RANGE	100	ACRES	
22N	21V	V	40	
RIVER OR STREAM NAME (FOR IN-STREAM)		<u>V</u>	40	
,	,			
MINERAL COMMODITY			ESTIMATED TONS/YEAR	
Limostono				
Limestone				
NAME OF LANDOWNER (ATTACH LIST IF MO	RE THAN ONE)			
  Leo Journagan Construction Company	, Inc			
ADDRESS	/, IIIC.		<del></del> -	
2002 E. Chastrut, Suite 1200				
3003 E. Chestnut Suite 1200	STATE	_		ZIP CODE
Springfield SOURCE OF RIGHT TO MINE (CHECK ONE):	Missouri			65804 DATE OF AGREEMENT
	1	<b>—</b>		
MINERAL DEED		LEASE		Jan-94
☑ WARRANTY DEED		VERBAL AGI	REEMENT	
_		_		
OTHER(DESCRIBE):				
	· · · · · · · · · · · · · · · · · · ·			
MINERAL RIGHTS OWNER (ATTACH LIST IF I	MORE THAN ONE)			
Leo Journagan Construction Company	•			
ADDRESS	/, IIIC.			
2002 E. Chartrut Suite 4200				
3003 E. Chestnut Suite 1200	STATE			ZIP CODE
Springfield SOURCE OF RIGHT TO MINE (CHECK ONE):	Missouri			65804 DATE OF AGREEMENT
	1	_		DATE OF AGREEMENT
MINERAL DEED		LEASE		Jan-94
✓ WARRANTY DEED		VERBAL AGI	REFMENT	
		- TEIWAL AU	Name to 1 Phys I I	
OTHER(DESCRIBE):				
			DECE	IVFD
NOTE: Each site must be shown on a	map and be inclu	ded in a publ	ic notice and an approv	red mine lah.
MO 780 1036 (12 01)			A JUL 3	U 1999 🛩

MO 780-1036 (12-91)



Revised 07/20/99	Permit #287	Hollister South
Missouri Department Of N	atural Resources	P.O. Box 176
Land Reclamation Program	1	Jefferson City, MO 65102
Mine Plan		
Short Term, For One		
X Long Term, For Perio		
Description of Site Prior to Topography.	Land Reclamation Commission Permitting (By A	oplicant or Prior Operator), Including Soil, Vegetation and
Vogotation: Equal s	amounts of unimproved pasture and hard	wood forest
Soil and Topograph	· · · · · · · · · · · · · · · · · · ·	wood lolest.
	od and Knobby Rock outcrop complexes	193 Δα ·
	Depth to bedrock 9-19 inches.	<u>. 195 Ac.</u> .
	s, Gravelly loam to Very flaggy clay loar	n 15-75% fragments
1	nes, Very gravelly loam to Very flaggy sil	· ·
	in a configuration, to a configuration and the configuration and t	in a magnitude
Hailey and Clarksville	Soils, 162 Ac.:	
	Depth to bedrock >60 inches.	
A Horizon: 12-13 in	ches, Very gravelly silt loam, 10-30% fra	gments.
	es, Very gravelly silty clay loam to extre	
Gatewood-Ocie com	plex, 40Ac.:	
10-35 percent slope,	Depth to bedrock 21 inches.	
A Horizon: 9 inches	, Gravely silt loam, 5-15% fragments.	
B Horizon: 12 inche	s, Gravely silty clay, 0-10% fragment	<b>3</b> .
	CSR 40-10.020(2)(D)1.	
A. Topsoil		
Average Depth of Topsoil,	Prior to Land Reclamation Commission Permitting	1 '
- · · · · · · · · · · · · · · · · · · ·	10Inch	es Yes or X No
Describe Methods and Equ	uipment Used for Topsoil Removal	
Soil material will be re	emoved with scrapers, loaders and dumi	trucks. The soil material may combine the A and B
		al with less that 25% fragments will be saved.
	- percent of real magnitudes	ar war roos arat 20 /0 magmonto vim 20 ouvou.
Describe Methods and Eq	uipment Used for Topsoil Storage and Protection	
		eeded with Mix A to prevent erosion. If possible soil
material will be haule	d directly to reclamation sites.	
		<b>—</b> —
		DECEIVED
		K
MO 780-1327 (12-91)		RECEIVE JUL 3 0 1999 Dage 1 of 5

MISSOURI LAND
RECLAMATION COMMISSION

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Permit #287

\ /	,		
Hol	lister	South	

3. Spoil	
Describe Methods and Locations of Spoil Placement and Disposal	
Soil materials that contain excess fragments, lower soil horizons and was	ste rock will be referred to as spoil.
Spoil will be used as a base below soil replacement areas, to reduce high placed in permanent disposal areas. The disposal areas will be active for	
C. Acid Materials	
Describe Methods and Equipment Used for Handling Acid Material (If None is Anticipated, Writ	e "None" Below)
None	
D. Pit Information (Give All Dimensions in Feet)	
Describe Location and Orientation of Pit, If Not Clear on Site Maps	-
See Map	
Yes No X Will any excavation be at or within fifty feet (50') of the right-of-way of any public	road?
Will any highwall consisting of unconsolidated materials be left within fifty feet of public road? (NOTE: For unconsolidated materials left in place, a slope of note.)	• • •
start near the right-of-way, and in no case may the excavation be closer to the ror twenty-five feet plus one and one-half (1-1/2) times the depth of unconsolida	
greater, unless a variance is granted by the Commission.)	DECEIVED
Will any excavation start at or within fifty feet (50') of any property line?  (NOTE: If the answer is "yes", a safety barrier may be needed.)	RECEIVED
MO 780-1327 (12-91)	MISSOURI LAND Page 2 of 5 RECLAMATION COMMISSION

MO 780-1327 (12-91)

#### Reclamation Plan-10 CSR 40-10.020(2)(D)2.

	\ccian	auon	rian-iv	COIL	70-10.0	120(2)	(0)2.	
_								-
			/ - 4	1 -	-1 -1 -4	_ 1 _ 1.	4 - **	

A. Revegetation (Attach additional sheets, if needed)

Revegetation Mix #1 Purpose Or Land Use

A Temporary Cover

Seeding Or Planting Time
As Needed

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Smooth Bromegrass and	12			
Perennial Ryegrass	12			
or Fescue	25			
Annual Ryegrass	50			
Revegetation Mix #2	Purpose Or Land Use		Seeding Or	Planting Time
B	All land uses exce	ept impoundments	1	ng & Frost

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
Ladino Clover or Crown Vetch	8		
Smooth Bromegrass	12	}	
Orchardgrass	12	1	1
Perennial Ryegrass	12		
Annual Ryegrass	50	DECFIVE	N

Attach Additional Sheets For Additional Seed Mixes

MO 780-1327 (12-91)



N JUL 3 0 1999

Reclamation	Plan-10	<b>CSR 40-</b>	10.020(2	2)(D)2.

A. Revegetation (Attach additional sheets, if needed)

Revegetation Mix #3 Purpose Or Land Use Seeding Or Planting Time All Land uses except impoundments Winter and Spring

#### Describe Methods and Equipment to be Used for Seeding or Planting

The seed mix will be broadcast on areas with sufficient cover to prevent erosion that have been seeded with mix A or B. On areas where the soil is slightly acidic or has low fertility this mix is expected to become dominant.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Big Bluestem	3			
Indiangrass	3			
Little Bluestem	3			
Sideoats Grama	3			
Switchgrass (common)	3			
Forbs Mix	0.75			
Redtop	8			
Revegetation Mix #4	Purpose Or Land Use		Seeding O	r Planting Time
D	All land uses exce	pt impoundments	Spring	

Describe Methods and Equipment to be Used for Seeding or Planting

Tree seedlings will be added to areas with sufficient cover to pervent erosion.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
		look Pino	
		Jack Pine,	
		Red Pine,	
		Persimmon,	
		Red Mulberry,	700
		Hackberry,	
		Shrub Lespedeza and/or	
		Hazelnut	
		The state of the s	TTE

Attach Additional Sheets For Additional Seed Mixes

MISSOURI LAND RECLAMATION COMMISSION

#### B. Grading

Describe Proposed Reclaimed Topography, Including Slopes

The spoil consist of soil horizons with greater than 25 percent fragments and waste rock. Typically all voids are filled with soil size particles resulting in a good root growth material. The spoil will be used to cover highwalls, create natural areas or to reduce the depth of the pit floor. Soil material with less than 25% fragments will be redistributed at a thickness of 12 inches that are required to have soil replacement.

Areas exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will consist of a surface layer of at least 24 inches of root growth material or will not be suseptable to erosion. At no time will the slope of the material be artificially increased beyond that at which the material is naturally stable.

If an area is not conducive to vegetation it will be covered with coarse aggregate, (Examples: columnar weathering above a highwall, parking areas, spillways, etc.).

#### Grading

10 CSR 40-10.050(10)(A)

Grading will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

#### Replacement of Topsoil

10 CSR 40-10.050(10)(A)

Topsoil replacement will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

#### Revegetation

Initial revegetation will occur during the first year after grading and soil replacement.

#### Average Depth of Replaced Topsoil (Inches)

12 inches of soil material

D. Use of Land When Reclaimed	Estimated Acres:
Estimated acreage of each land use below, after reclamation	
Wildlife (forest or other habitat with livestock excluded)	360
Agriculture (pasture, cropland, and horticultural)	
Development (residential, industrial, and recreational)	VFD 35
Water Impoundments (for wildlife, agricultural, or development)	1999 <b>D</b>

MISSOURI LAND

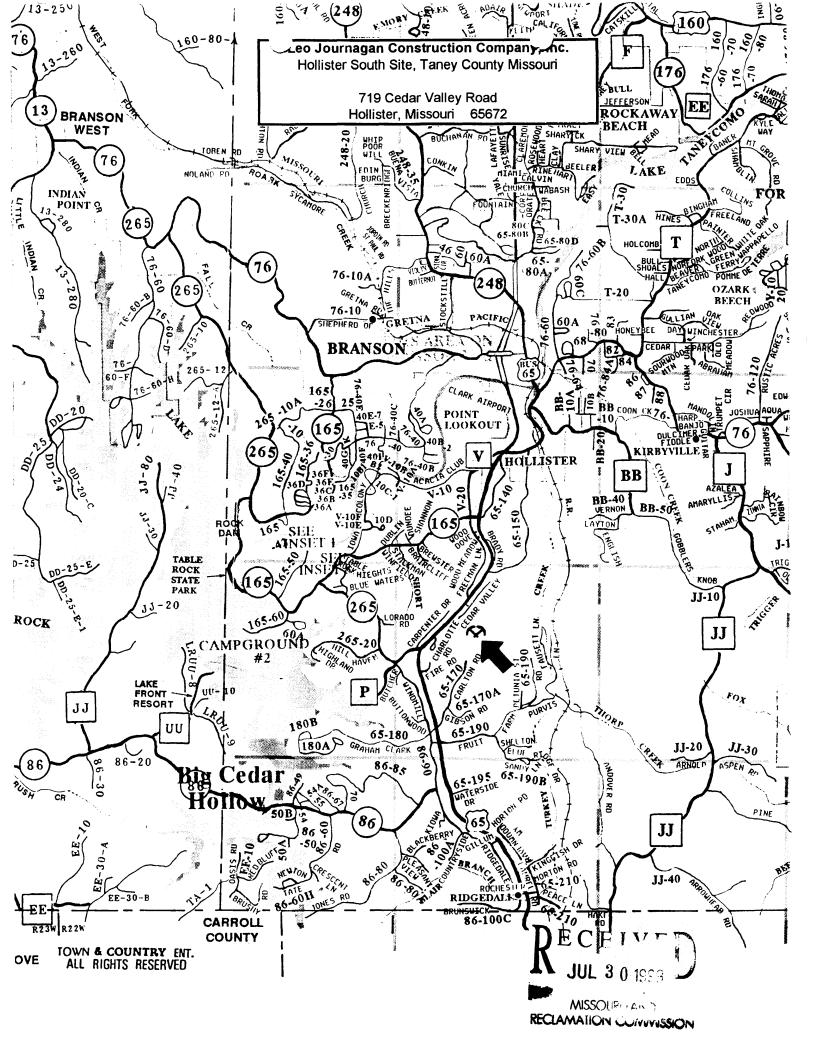
RECLAMATION COMMISSION

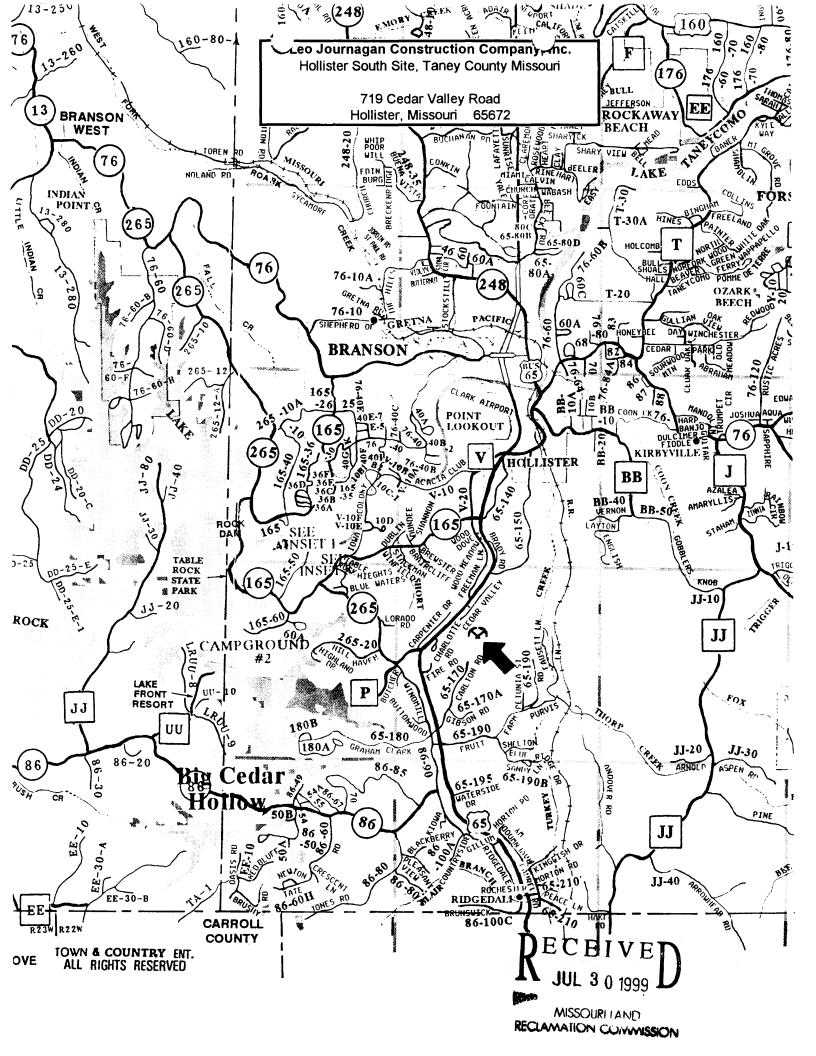
MO 780-1327 (12-91)

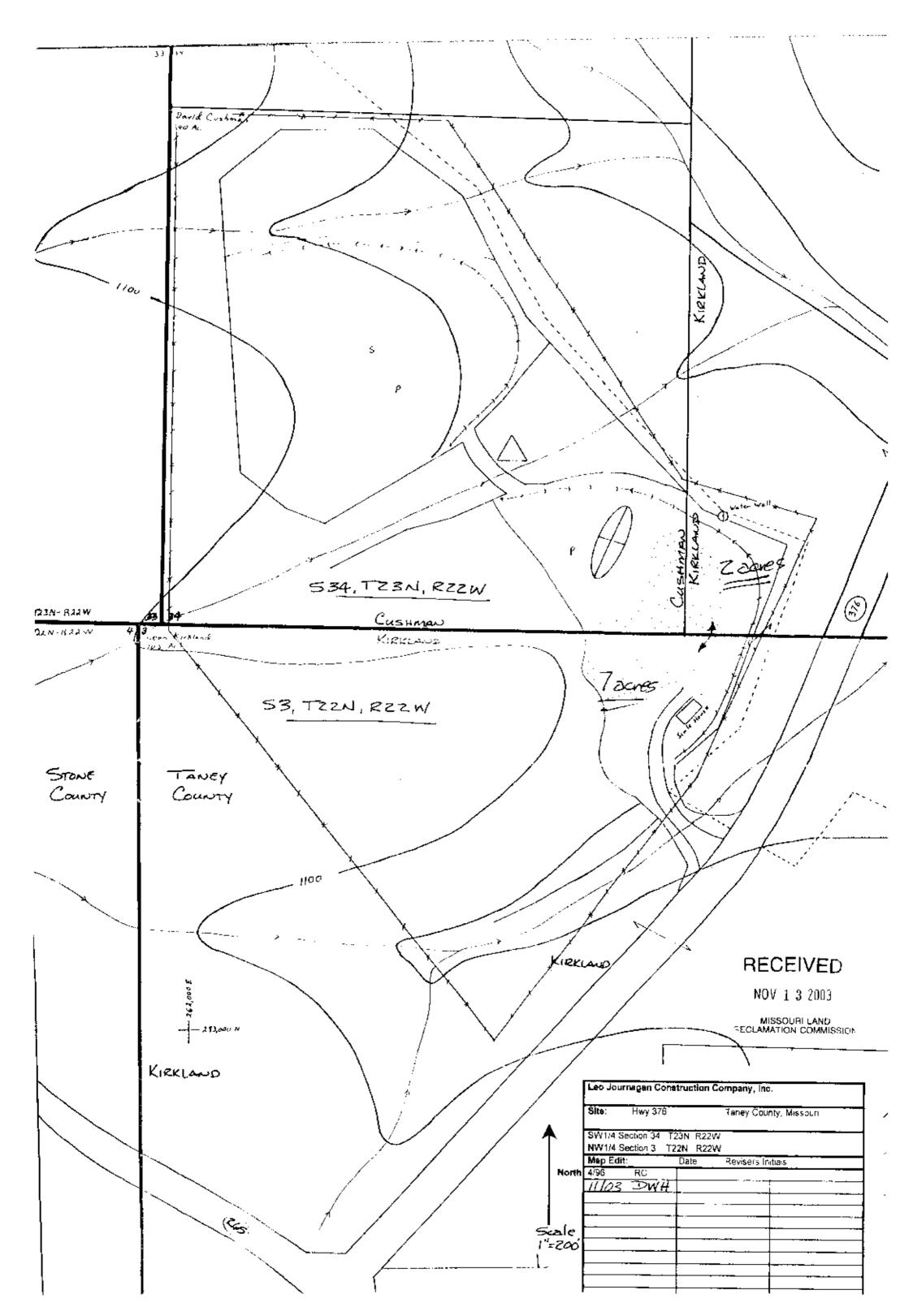
## By my signature, I attest to the following:

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Section 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained ate approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and futher where I have no such right, I have attached signed affidavits from the landowneds, granting such access.

Signature of Applicant	Titl	le	Date
Krssell (	rawley G	seologist	July 27, 1999
Notary Public Embosser Seal	State Missouri		County (Or Chy of St. Louis)
	Subscribed and Sworn Before a 27th Day Of Ju	me, This	Use Rubber Stamp Below
	Notary Public Signature  Huna A Cray  Notary Public Name (Typed of Wina T	My Commission Expires  A 11-4-99  Printed)  Craighted	NINA I CRA'GHEAD  NOTARY PUBLIC STATE OF MISSOURI  GREENE COUNTY  MY COMMISSION EXP NOV 4,1999
Approved By (Director's		Date Approved 7-7-8	Permit Number
MO 780-1327 (12-91)		MISSOURI C	LAND







SITE INFORMATION FORM	10f2		Revised 7/31/96	
To be completed for each separte area	a of disturbance asso	ciated with	mining operations.	
SITE NAME OR NUMBER			PERMIT NUMBER	
  Hwy 376	Site #	14		287
COMPANY NAME		. ,		201
	. 1			
Leo Journagan Construction Company	/, INC. 1/4 SECTION		SECTION	
Taney	SE SW , NW		34 3	
TOWNSHIP	RANGE		ACRES	
23N , 22N	22W		5 , 24	
RIVER OR STREAM NAME (FOR IN-STREAM)	ACRES)			
			29	
MINERAL COMMODITY			ESTIMATED TONS/YE	AR (FOR GRAVEL SITES)
Limanton				
Limestone			<u> </u>	
NAME OF LANDOWNER (ATTACH LIST IF MO	PRE THAN ONE)			
·	,			
Leon Kirkland c/o David Cushman ADDRESS				
ADDRESS				
P.O. Box 250	<b></b>	_		
CITY	STA'E			ZIP CODE
Branson	Missouri			65615
SOURCE OF RIGHT TO MINE (CHECK ONE):				DATE OF AGREEMENT
MINERAL DEED	<b>.</b>	LEASE		Mar-95
	<b>Z</b>	LEAGE		Iviai-30
☐ WARRANTY DEED		VERBAL AG	GREEMENT	
OTHER(DESCRIBE):				
MINERAL RIGHTS OWNER (ATTACH LIST IF I	MODE THAN ONE)			
WINDLY ACTION OF THE CONTROL OF THE	MORE ITIAN ONE)			
Leon Kirkland c/o David Cushman				
ADDRESS				
P.O. Box 250				
CITY	STATE		<del></del>	ZIP CODE
Branson	Missouri			65615
SOURCE OF RIGHT TO MINE (CHECK ONE):	IVIISSOUT			DATE OF AGREEMENT
i	[			
MINERAL DEED	×	LEASE		Mar-95
☐ WARRANTY DEED	Г	VERBAL AG	REEMENT	
_	_	1		
OTHER(DESCRIBE):				

MO 780-1036 (12-91)

NOTE: Each site must be shown on a map and be included in a public notice and an approved mine plan. OCT 0 4 1996

S

ITE IN	FORMAT	ION FORM	#2	of Z	 Revised 7
			<u> </u>	1 1	 

SHE INFORMATION FORM	#2 0+ 2		Revised 7/31/96	
To be completed for each separte area	of disturbance as	sociated with	mining operations.	
SITE NAME OR NUMBER	vb . 1	**************************************	PERMIT NUMBER	
	Site #14		207	
	7110		287	
COMPANY NAME				
Leo Journagan Construction Company				
COUNTY	1/4 SECTION		SECTION	
Taney	lsw sw		34	
TOWNSHIP	RANGE		ACRES	
23N	22W		34	
RIVER OR STREAM NAME (FOR IN-STREAM A	(CRES)			
MINERAL COMMODITY			ESTIMATED TONSIYEAR (	FOR GRAVEL COMP.
Limestone				
Enfocione				
NAME OF LANDOWNER (ATTACH LIST IF MO	RE THAN ONE)			
D. M. Outhernes				
David Cushmann ADDRESS				
ADDRESS				
P.O. Box 250				
CITY	STATE			ZIP CODE
Branson	Missouri			56615
SOURCE OF RIGHT TO MINE (CHECK ONE):				DATE OF AGREEMENT
MINERAL DEED	•	X LEASE		
I MINERAL DEED		M LEASE		Mar-95
WARRANTY DEED		VERBAL AG	REEMENT	
OTHER(DESCRIBE):				
MINERAL RIGHTS OWNER (ATTACH LIST IF N	MORE THAN ONE)			
David Cushmann				
ADDRESS				
D O Boy 250				
P.O. Box 250	STATE			ZIP CODE
	OTATE			ZIF CODE
Branson	Missouri			56615
SOURCE OF RIGHT TO MINE (CHECK ONE):	1			DATE OF AGREEMENT
MINERAL DEED		LEASE		Mar-95
		-		IVIAI-55
WARRANTY DEED	•	VERBAL AC	GREEMENT	
OTHER(DESCRIBE):				
		·		
NOTE: Each site must be shown on a	map and be include	ded in a publi	c notice and an approve	ed mine plan.

MO 780-1036 (12-91)



P.O. BOX 176
JEFFERSON CITY, MOESSIGN

TYPE OF PLAN (CHECK ONE):				
I	371. 4.1			
$\square$ long term, for period through date: July $31,\ 2005$	twy 376; #14			
DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING (BY APPLICANT OR AND TOPOGRAPHY.	PRIOR OPERATOR), INCLUDING SOIL, VEGETATION			
Approximately 20 acres were disturbed to supply barrow material for road construction previous to permitting.				
The remainder is mostly identified as 18F, Gasconade-Ga	tewood-Rock outcrop			
complex, 15 to 50 percent slopes.	tewood Rech outerop			
60% Gasconade: Depth to bedrock 10 to 20 inches				
0-8" very flaggy clay loam				
20% Gatewood: Depth to bedrock 32 inches 0-10" very gravelly silt loam				
20% Rock Outcrop: areas of exposed dolomite bedrock				
Clayey-skeletal, mesic Lithic Hapludoll				
OPERATION PLAN - 10 CSR 40-10.020(2)(D)1.				
A. TOPSOIL  AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COMMISSION PERMITTING	IS TOPSOIL TO BE SOLD OR DISCARDED OFFSITE?			
9" INCHES	Ses or No			
DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVAL	LI YES OR LI NO			
Scrapers, dozers, and dump trucks depending on the physical depending	sical limitations of the site.			
What little topsoil that is of sufficient quality to allow percent rock fragments) will be stockpiled at the location be utilitized later. The stockpiles will be seeded with acceptable grass species for temporary cover. Soil will typically be transported by scrapers to the stockpiles will be seeded with the seeded	ons shown on the map to escue or another			
··O 780-1327 (12-91)	PAGE 1 OF 5			

10

. SPOIL		
ESCRIBE METHODS	AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL	
All spoil of the f	will used to establish a 1-2% slope of the pit floor. inal grade will be contemperanous with mining.	development V
		JAN 25 1995 MISSULLING RECLAMATION COMMISSION
		MESSIVATION COMMISSI
. ACID MATERI	ALS	
ESCRIBE METHODS	AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED, WRITE "N	ONE" BELOW)
Service Cons		
N/A		
	TION YOU'S ALL DIMENSIONS IN EFET!	
D. PIT INFORMA	TION (GIVE ALL DIMENSIONS IN FEET)  N AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS	
DESCRIBE LOCATION	NAND ONIENTATION OF THE HOT OLEMAN STORY ENGINEER	!
See ma	p <b>.</b>	
•		
\$ ·		•,
YES NO		
	Will any excavation be at or within fifty feet (50') of the right-of-way of any pul	
	Will any highwall consisting of unconsolidated materials be left within fifty public road? (NOTE: For unconsolidated materials left in place, a slope of r start near the right of way, and in no case may the excavation be closer to or twenty-five feet plus one and one-half (1-½) times the depth of uncons greater, unless a variance is granted by the Commission.)	o more than forty degrees may the right of way than fifty feet
	Will any excavation start at or within fifty feet (50') of any property line?	
	(NOTE: If the answer is "yes", a safety barrier may be needed.)	
AO 780-1327 (12-91)		PAGE 2 OF



RECLAMATION PLAN - 10 CSR 40-10.020(2)(D)2.

A. REVEGETATION (Attach additional sheets, if needed)

REVEGETATION MIX #1

PURPOSE OR LAND USE

Temporary stockpiles

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Broadcast seeder or hydromulch

Domant seeding: NOV 1 - MAR 1

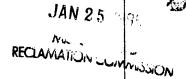
SEEDING OF PLANTIN

Spring:

MAR 15 - APR 30

Fall:

AUG 15 - OCT 15



Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

SEEDED SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
Fescue, orchard grass, bromegrass or perennial ryegrass	10		
Annual ryegrass	20		
REVEGETATION MIX #2	PURPOSE OR LAND USE  Commercial	8. SEEDING OR PLA Spring	

DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

Acceptable establishment methods for bare rootstock or container woody species.

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients. Mulch will be applied to all slopes exceeding 5:1.

SEEDED SPECIES	POUNDS/ACRE	TREE OR SHRUB SPECIES	STEMS/ACRE
		Leatherleaf viburnum	60
		Honeysuckle	3600
	1	Winter Creeper	10800
	1		
			1

ATTACH ADDITIONAL SHEETS FOR ADDITIONAL SEED MIXES.

MO 780-1327 (12-91)

PAGE 3 OF 5

# Chapter 10—Permit and Performance Requirements for Industrial Mineral Open Pit and In-Stream Sand and Gravel Operations



JAN 25 MAS

B. G ADING	Misson
DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES	MISSOURI LAND RECLAMATION COMMISSION
See B. Spoil on page 2	
Green spares within the development will be provided material, due to the extremely poor quality of the sol of all available root growth material salvaged during	I this will be a mixture
The unconsolidated material above final highwalls will seeding mix #2.	be sloped and planted to
C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIV	ITIES
GRADING In accordance with 10 CSR 40-10.050 (10)(A)	
In accordance with to CSR 40-10,000 (10)(11)	
REPLACEMENT OF TOPSOIL	
In accordance with 10 CSR 40-10.050 (10)(	A)
Ill accordance with to CBR 40 10,000 (10)(	,
REVEGETATION	
In accordance with 10 CSR 40.10.050 (10)(B	
In accordance with 10 CSR 40.10.030 (10)(B	
AVERAGE DEPTH OF REPLACED TOPSOIL (INCHES)	
12	
D. USE OF LAND WHEN RECLAIMED	
Estimate acreage of each land use below, after reclamation	ESTIMATED ACRES:
, , , , , , , , , , , , , , , , , , , ,	
Wildlife (forest or other habitat with livestock excluded)	
Agricultural (pasture, cropland, and horticultural)	
rigination (page of a capacita)	
Development (residential, industrial, and recreational)	
Development (residential, industrial, and recreational)	63
Mark the state of	
Water impoundments (for wildlife, agricultural, or development)	
MO 780-1327 (12-91)	PAGE 4 OF



MISSOURILAND
RECLAMATION COMMISSION

By my signature, I attest to the following:

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

SIGNATURE OF APPLICAN		TITLE		DATS
Hotel	Não =	Vice-Preside	ent	January 18, 1995
NOTARY PUBLIC EMBOS ER SEAL	Missouri		COUNTY (OR CIT	TY OF ST. LOUIS)
	SUBSCRIBED AND SWORN BEFORE ME.  18th DAY OF Jan	THIS LUARY 19 95		CENE R STAMP IN CLEAR AREA BELOW
	NOTARY PUBLIC SIGNATURE  NOTARY PUBLIC NAME (TYPED OR PANTED)  Nina I. Craighead	MY COMMISSION EXPIRES  11-04-95	NOTARY	NINA I CRAIGHEAD PUBLIC STATE OF MISSOURI GREENE COUNTY MMISSION EXP. NOV. 4,1995
APPROVED BY SIRECTOR'S REPR		7-24-9	'5—	PERMIT NUMBER
MO 780-1327 (12-91)				PAGE 5 OF 5

CODE OF STATE REGULATIONS

Site # 14
Hwy. 376 Quarry
Taney County

Alan Cushman Revocable Living Trust

c. ("Contractor"), and David Cushman, Trustee of till Davi

T, made and entered into this 22 day of

shman"), and Leon Kirkfand Trustee of the Leon Kirklan

deted July 10, 1991》

IrroyScable Living Trust dated April 19, 1983,

1995, by and between Leo Journagan

SEMENT AGREEMENT

TEMPORARY RIGHT OF ENTRY AND TEMPORARY EA

SALE OF MINERAL INTERESTS A

which is incorporated herein by reference as if fully set forth at length and Kirkland owns property (the "Kirkland Property") as is more particularly described on Exhibit "B" which is incorporated herein by reference as if fully set forth at length, (together the "Property"), and Cushman and Kirkland are willing to grent options to purchase the Property as shown in the Purchase WHEREAS, Cushman owns property Ithe "Cushman Property"), as more particularly described on Exhibit "A" hereof ("Kirkland"), together the "Owners". WITNESSETH:

(hereafter defined) for the purpose of exploying, mining, and removing from such Quarry Property by strip mining process, and WHEREAS, the Contractor desire to conduct commercial quarry and concrete aperations on the Quarry Property crushing limestone deposits and rock into gravel, sand and other products.

Options section set forth herein below, and

NOW, THEREFORE, in consideration of the premises and the mutual covenants and promises contained herein to be aithfully kept and performed by the parties hereto, it is agreed as fallows: Grant of Mineral Interest, Right of Entry and Easement. The Contractor is to have the right to the possession the Preliminary Grading Plan for the Cushman/Kirkland Property dated November 15, 1993, revised February 22, 1995, March 10, 1994, incorporated herein by reference as if fully set forth at length herein, as more particularly horeinafter set forth, but necessary buildings, machinery, fixtures and roads, at the most convenient locations and grades as limited herein. The other purposes set forth herein. The rights and obligations and benefits and burdens of the parties hereto shall be binding upon and inure to the benefit of their respective representatives, successors and assigns and shall run with the land. Contractor agrees that all expenses associated with Contractor's rights hereunder shall be Contractor's sole responsibility. Notwithstanding only of so much of the surface and interior of said portion of said Quarry Property as may be actually required, and only as limited nerein, for the safe, expeditious and economical mining, querrying, and removal of said limestone deposits and rocks, and the efuse from the operations incidental to this use of the Quarry Property. Said possession is to include ground adequate for and the use of improved machinary and fixtures or appliances for said purposes; but shall only have a non-exclusive right to strip Property as of the date above, without permission of the Owner. Subject to the terms and conditions set forth herein, and to easements, reservations, restrictions and covenants, if any, of record, the Owners hereby grant to the Contractor, its successors anything herein to the contrary, the grant contained in this paragraph 1 is limited to the portions of the Querry Property shown of so much of the Quarry Property as is shown by the shaded area (the "Quarry Property") pursuant to the legend on Exhibit "C", crushing of tha same into gravel, sand and other products (the "Material") and as may be required for stockpile areas for storage of the Material, and the temporary right, as limited herein, to deposit on and in the above described Quarry Property, waste and Contractor shall have the exclusive right to quarry, to include all practical mothods now in use or which may hereafter be used, the surface or excavate, dig, bore and shaft. Contractor shall not remove any building or farm structure located on the Quarry and assigns, a right of entry and an easement in, under, upon, across, over and through the Quarry Property for the purposes of quarrying and preparing to and actually hauling Material and for purposes of constructing a road for such purpose and for the

ı	Pe	rm	iit	#2	8	7

Shell Rock

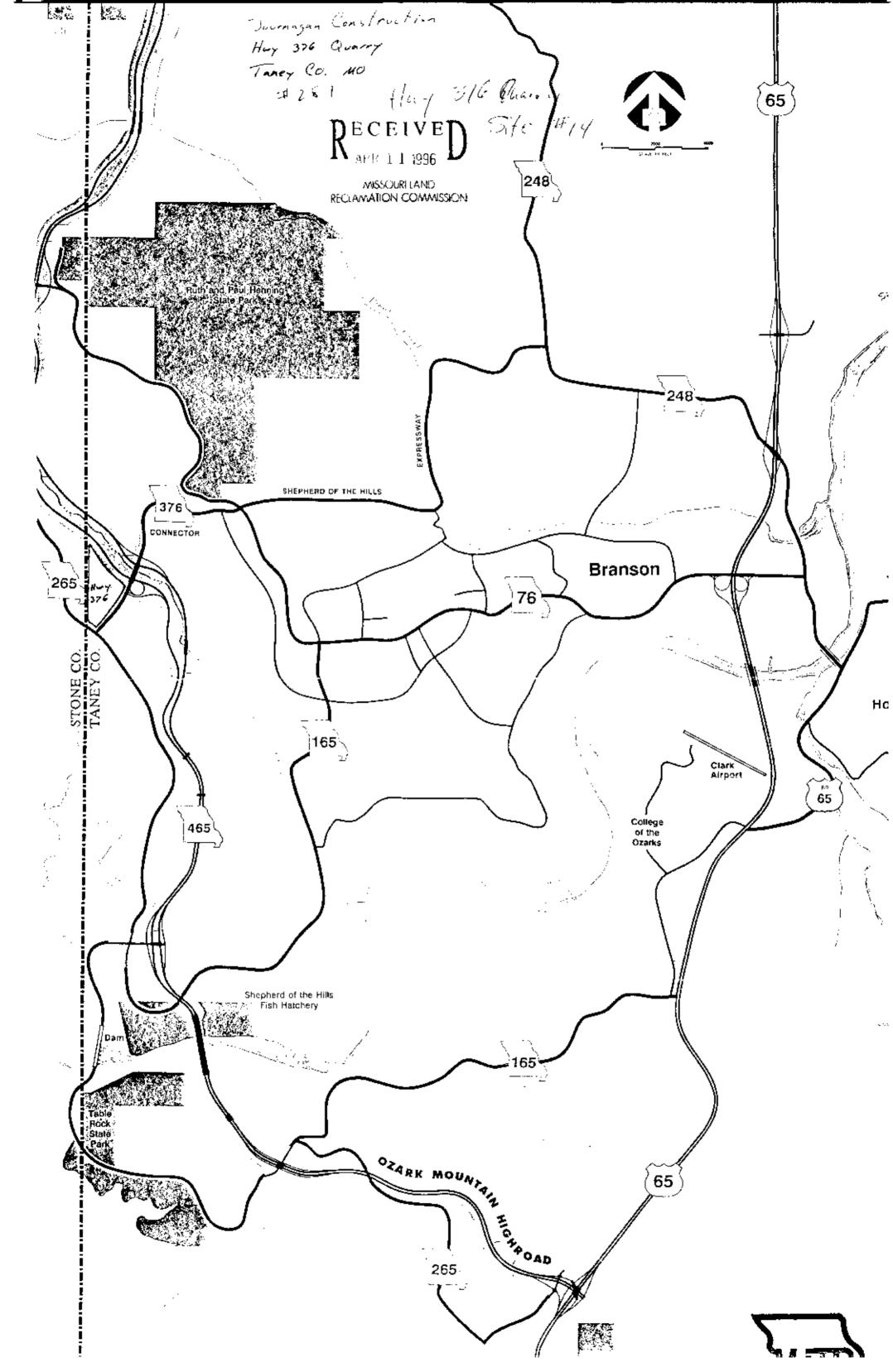
## By my signature, I attest to the following:

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Section 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and futher where I have no such right, I have attached signed affidavits from the landowneds, granting such access.

MISSOURI LAND RECLAMATION COMMISSION

Signature of Applicant	Law Cen	Title	Geologist	•	Date 7/12/96
Notary Public Embosser Seal	State  Subscribed and Sworn	n Before me, This		County (Or C	city of St. Louis)
	/2 Day Of	July	19 96	Use Rubber	Stamp Below
	Notary Public Signatur  Motary Public Name (1	Craigheast	My Commission Expires  1-4-99  Craightead		NINA I CRAIGHEAD ARY PUBLIC STATE OF MISSOUR GREENE COUNTY COMMISSION EXP NOV 4,1999
Approved By (Director's f	Representative)		Date Approved		Permit Number
Donna	R. Min	o week	11-22-	96	C287
MO 780-1327 (12-91)					Page 5 of 5







To be completed for each separate a			5.
SITE NAME OR NUMBER	1	PERMIT NUMBER	
8 McCr	acken	287	
COMPANY NAME			
Leo Journagan Const	ruction Company, Inc	•	
COUNTY	1/4 SECTION		SECTION
Christian	SW		20
OWNSHIP	RANGE		ACRES
27N	20 <b>W</b>		57 M.O.L.
RIVER OR STREAM NAME (FOR IN-STREAM	ACRES)		
NA			
MINERAL COMMODITY		ESTIMATED TONS/YEAR (F	OR GRAVEL SITES)
Limestone		NA	· · · · · · · · · · · · · · · · · · ·
NAME OF LANDOWNER (ATTACH LIST IF M	ORE THAN ONE)		
Nina R. Howard			
ADDRESS			
Rt 1, Box 481			
CITY		STATE	ZIP CODE
Sparta		МО	65655
SOURCE OF RIGHT TO MINE (CHECK ONE)	;		DATE OF AGREEMENT
MINERAL DEED		X LEASE	03-01-89
WARRANTY DEED		VERBAL AGREEMENT	
OTHER (DESCRIBE):			
MINERAL RIGHTS OWNER (ATTACH LIST IF	MORE THAN ONE		-
	MORE THAN ONE)		
Nina R. Howard			
Rt 1, Box 481			····
SITY		STATE	ZIP CODE
Sparta		MO	65655
SOURCE OF RIGHT TO MINE (CHECK ONE)	):		DATE OF AGREEMENT
MINERAL DEED		X LEASE	03-01-89
WARRANTY DEED		VERBAL AGREEMENT	

## Page 1 of 5

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Page 1 of 5

Revised 07/26/96 Perm	nit #287	( Mc Cracken	001 81 1996
Missouri Department Of Natural Resources		P.O. Box 176	MISSOURI LAND
Land Reclamation Program		Jefferson City, MO 65102	MISSOURI LAND RECLAMATION COMMISSION
Mine Plan			
Short Term, For One Permit Year		Site#	8
Long Term, For Period Through Date:	31-Jul-07	>17C7	
Description of Site Prior to Land Reclamation Col Topography.	mmission Permitting (By Applicant	or Prior Operator), Including Soil, Vegetation	on and
Vegetation: Equal amounts of unimp	proved pasture and hardwoo	od forest.	
Soil and Topography: Goss Series, 30%: Clayay-skeletal, m	sived masic Typic Delands	Ifa 20 margant along	
A Horizon: 6 inches, fcherty silt loam,	• • • • • • • • • • • • • • • • • • • •	iis, 20 percent slope.	
B Horizon: 56 inches, cherty six loam,	-		
B Honzon. 30 menes, enerty day, 40	nagments.		
Gasconade Series, 35%: Cherty-skeld A Horizon: 10 inches, flaggy silty clay, B Horizon: 7 inches, flaggy silty clay,	y, 35% fragments.	apludolis, 45 percent slope.	
Tonti Series, 35%: Fine-loamymixed	, mesic Typic Fragiudults, 5	5 percent slope.	
A Horizon: 7 inches, silt loam.	. ,	•	
B Horizon: 55 inches, cherty silty clay	loam, 40% fragments.		
	_		
Operational Blan 40 CSB 40 40 0200	2VD)4		
Operational Plan-10 CSR 40-10.020(2) A. Topsoil	2)(U)1.		, <u>and a second and a second a second and a </u>
Average Depth of Topsoil, Prior to Land Reclamat	ion Commission Bermitting	Is Topsoil to be Sold or Discarded Offsite	.2
Average Deput of Topson, Phor to Land Neclamat	8 Inches	Yes or Y No	· •
Describe Methods and Equipment Used for Tops		1 100 01 110	
Soil material will be removed with scra	pers, loaders and dump tru	icks. Soil material with less that	25%
fragments will be saved.			
1			
1			
Describe Methods and Equipment Used for Tops	oil Storage and Protection		I
Soil material will be stockpiled within t soil material will be hauled directly to r		led with Mix A to prevent erosion.	If possible
·			

MO 780-1327 (12-91)

B. Spoil	
Describe Methods and Locations of Spoil Placement and Disposal	
Soil materials that contain excess fragments, lower soil horizons and waste rock will be referred to as spoil. These materials will be used as a base below soil replacement areas, to reduce highwalls, stockpiled as construction fill or placed in permanent disposal areas. The disposal areas will be active for the entire life of the mine.	
C. Acid Materials	
Describe Methods and Equipment Used for Handling Acid Material (If None is Anticipated, Write "None" Below)	
None	
D. Pit Information (Give All Dimensions in Feet)  Describe Location and Orientation of Pit, If Not Clear on Site Maps	
See Map	
Yes No	
Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?	\
X   Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?   X   Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of-way of any public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right-of-way, and in no case may the excavation be closer to the right-of-way than fifty feet or twenty-five feet plus one and one-half (1-1/2) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)   X   Will any excavation start at or within fifty feet (50') of any property line? (NOTE: If the answer is "yes", a safety barrier may be needed.)	) NYSSIOT
Mission of	
Will any excavation start at or within fifty feet (50') of any property line?  (NOTE: If the answer is "yes", a safety barrier may be needed.)	

Mc Cracken

Revised 09/25/96

Permit #287

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Permit #287

Mc Cracken

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Reclamation Plan-10 CSR 40-10.020(2)(D)2.

A. Revegetation (Attach addition	onal sheets, if needed)	RECLAMISSOURI LAND
Revegetation Mix #1	Purpose Or Land Use	Seeding Or Planting Time
Α	Temporary Cover	As Needed

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Smooth Bromegrass and	12			
Perennial Ryegrass	12			
or Fescue	25			
Annual Ryegrass	50			
Damashi Mir HO	Durana Oal and Ha		loss discos	
Revegetation Mix #2	Purpose Or Land Use		_	r Planting Time
В	All land uses exce	pt impoundments	Fall, Sp	ring & Frost

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
Ladino Clover or	8		
Crown Vetch			
Smooth Bromegrass	12		
Orchardgrass	12		
Perennial Ryegrass	12		
Annual Ryegrass	50		

Describe Methods and Equipment to be Used for Seeding or Planting

The seed mix will be broadcast on areas with sufficient cover to prevent erosion that have been seeded with mix A or B. On areas where the soil is slightly acidic or has low fertility this mix is expected to become dominant.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Js/Acre	Tree or Shrub Sp	ecies
Big Bluestem	3		
Indiangrass	3		
Little Bluestem	3		
Sideoats Grama	3		
Switchgrass (common)	3		
Forbs Mix	0.75		
Redtop	8		
Revegetation Mix #4	Purpose Or Land Use		Seeding Or Planting Time
D	All land uses exce	pt impoundments	Spring

Describe Methods and Equipment to be Used for Seeding or Planting

Tree seedlings will be added to areas with sufficient cover to pervent erosion.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
		Jack Pine, Red Pine, Persimmon, Red Mulberry, Hackberry, Shrub Lespedeza and/or Hazelnut	700

Attach Additional Sheets For Additional Seed Mixes

RECEIVE

#### **B.** Grading

Describe Proposed Reclaimed Topography, Including Slopes

The spoil consist of soil horizons with greater than 25 percent fragments and waste rock. Typically all voids are filled with soil size particles resulting in a good root growth material. The spoil will be used to cover highwalls, create natural areas or to reduce the depth of the pit floor. Soil material with less than 25% fragments will be redistributed at a thickness of 12 inches on locations that are expected to have a udic (free draining) soil environment and slopes of 3:1 or less.

Areas exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with soil material after covering areas of lesser slope, these areas will always have at least 24 inches of root growth material. At no time will the slope of the material be artificially increased beyond that at which the material is naturally stable.

All other areas not exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with a layer of soil material, as available to a minimum thickness of 12 inches. The slopes will be 5:1 or less.

If an area is not conducive to vegetation it will be covered with coarse aggregate, (Examples: columnar weathering above a highwall, parking areas, spillways, etc.).

C	C. Describe	The General Sec	uence and Timing	of the Following

_		
Grad	חמו	

10 CSR 40-10.050(10)(A)

Grading will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

Replacement of Topsoil

10 CSR 40-10.050(10)(A)

Topsoil replacement will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

Revegetation

Initial revegetation will occur during the first year after grading and soil replacement.

Average Depth of Replaced Topsoil (Inches)

12 inches of soil material

D. Use of Land When Reclaimed

Estimated acreage of each land use below, after reclamation

Wildlife (forest or other habitat with livestock excluded)

Agriculture (pasture, cropland, and horticultural)

Development (residential, industrial, and recreational)

Water Impoundments (for wildlife, agricultural, or development)

MO 780-1327 (12-91)



Page 4 of 5

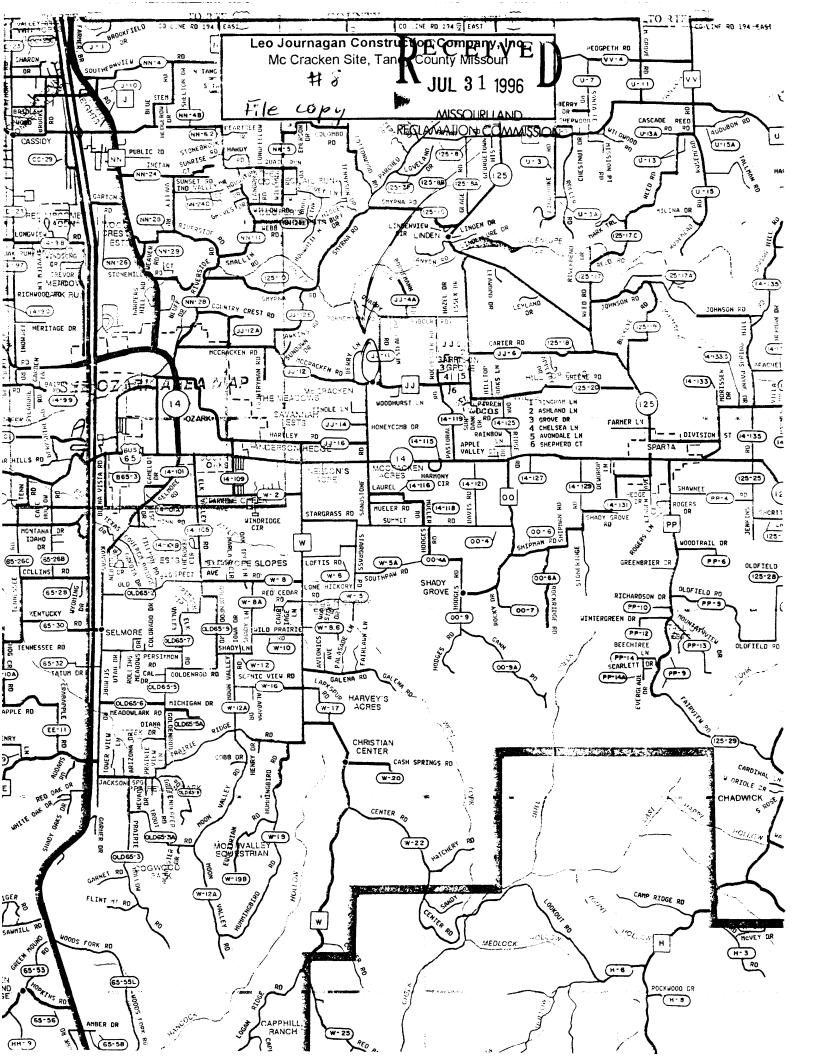
## By my signature, I attest to the following:

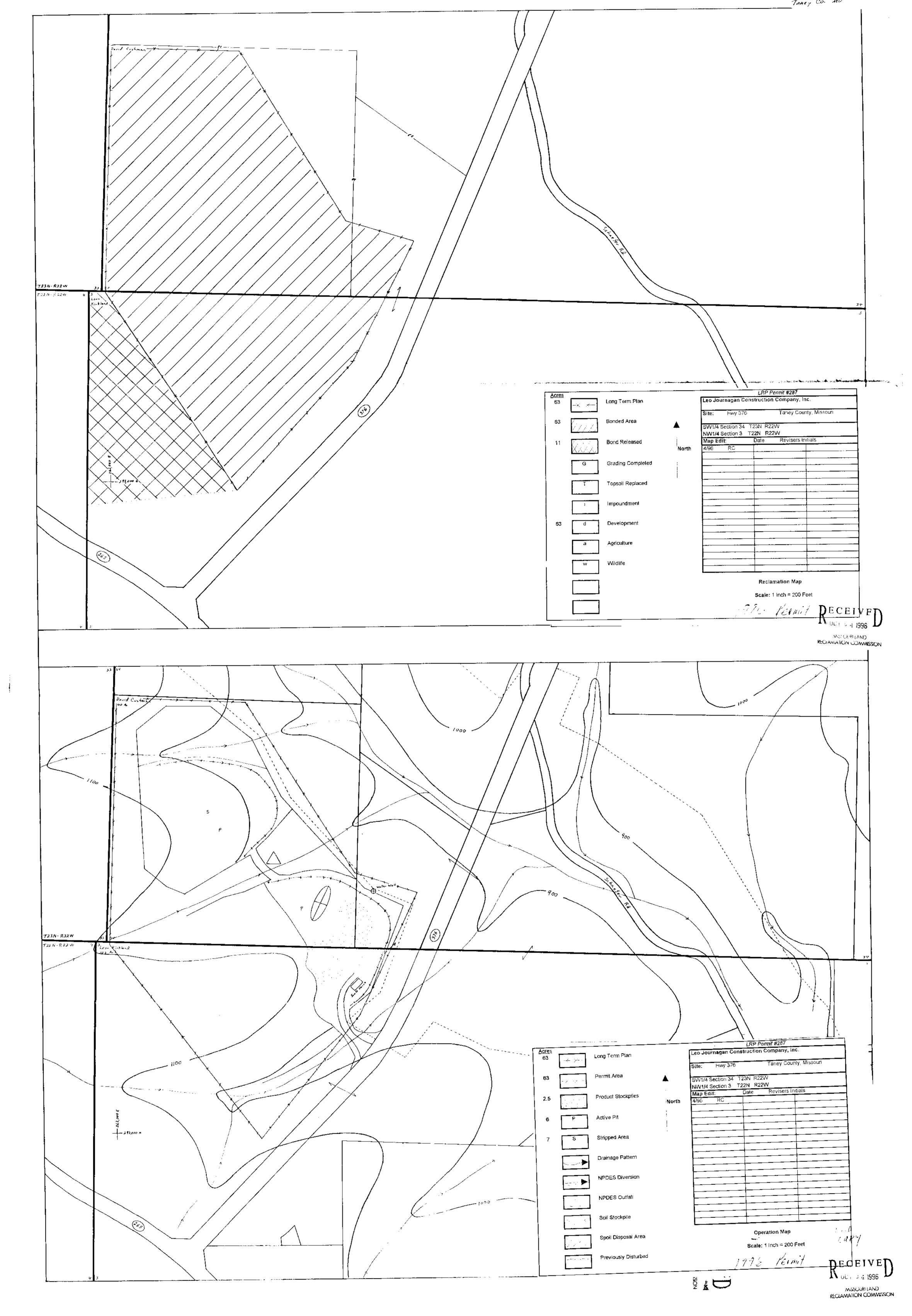
- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Section 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowners for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

Leo Journagan Construction Company McCracken Quarry Permit 287

<del></del>							
Signature of Applicant		Title			ĮL	Date	
Russell Cra	weez		Environ	mental Geologist		October 1, 1996	
Notary Public Embosser Seal	State					County (Or City of St. Louis)	
		Missouri					
	Subscribed	and Sworn Be	fore me, This		7 (	Greene	
	01	Day Of	October	1996	Use Rubber S	tamp Below	
	Notary Pub	lic Signature	My	Commission Expires			
	Men	Juna J. Craigherd 11-4-9		11-4-99	NINA I CRAIGHEAD NOTARY PUBLIC STATE OF MISS		
			Name (Typed or Printed)			GREENE COUNTY MY COMMISSION EXP NOV 4,1999	
		Nina I.	Craighead		THE COMMISSION EXT 1404 4,1		
Approved By (Director's R	ed By (Director's Representative)			ite Approvid EC	CIVE	Permit Number	
Donu	R.	Mul	own	K7.2	=14E	0287	
MO 780-1327 (12-91)			1	· 1996 -	Page 5 of 5		
				MISSO	IURI LAND		

RECLAMATION COMMISSION





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## SITE INFORMATION FORM

Revised 7/29/96

MISSOURI LAND RECLAMATION COMMISSION

OUTE MANE OF AUGUSES				
SITE NAME OR NUMBER			PERMIT NUMBER	
Protem	Site #12		287	
COMPANY NAME	············			
Leo Journagan Construction Compan	v Inc			
COUNTY	1/4 SECTION		SECTION	
Tanav	sw		16	
Taney Township	RANGE		ACRES	
			1	
21N RIVER OR STREAM NAME (FOR IN-STREAM	17W		160	
RIVER OR STREAM NAME (FOR IN-STREAM	ACRES			
			T	
MINERAL COMMODITY			ESTIMATED TONS/YEAR (	FOR GRAVEL SITES)
Limestone				
NAME OF LANDOWNER (ATTACH LIST IF MO	ORE THAN ONE)			
John Hunter				
ADDRESS				
Rt. 2 Box 165				
CITY	I AH			ZIP CODE
Drotom	Missouri			65713
Protem SOURCE OF RIGHT TO MINE (CHECK ONE):			<u> </u>	DATE OF AGREEMENT
	· 1	K7		
MINERAL DEED		<b>X</b> LEASE		Apr-91
WARRANTY DEED		VERBAL AG	GREEMENT	
OTHER(DESCRIBE):				
				<del></del>
MINERAL RIGHTS OWNER (ATTACH LIST IF	MORE THAN ONE)			
John Hunter				
ADDRESS				
D4 0 Day 165				
Rt. 2 Box 165 CITY	STATE			
Protem	Missouri			DATE OF AGREEMENT
SOURCE OF RIGHT TO MINE (CHECK ONE)	· [			DATE OF AGREEMENT
MINERAL DEED		X LEASE		Apr-91
WARRANTY DEED		VERBAL AC	GREEMENT	
OTHER(DESCRIBE):				
NOTE: Each site must be shown on	a map and be incl	uded in a publi	c notice and an approve	ed mine plan.

MO 780-1036 (12-91)

## Page 1 of 5



Page 1 of 5

Revised 07/29/96	Permit #287	Protem	AAICCO
Missouri Department Of Natural Resource	ces	P.O. Box 176	MISSOURI LAND
Land Reclamation Program  Mine Plan		Jefferson City, MC	RECLAMATION COMMISSION
Short Term, For One Permit Year		.1	
Long Term, For Period Through Da	te: 31-Jul-07	# 1	
Description of Site Prior to Land Reclar Topography.	nation Commission Permitting (By Applica	ant or Prior Operator), Including Soil, \	Vegetation and
Vegetation: Equal amounts o	of unimproved pasture and hardw	ood forest.	
Soil and Topography:			
	y-Skeletal, mixed, mesic Lithic h	lapludolls, 15 percent slope.	
A Horizon: 4 inches, flaggy loa	_		
B Honzon: 10 inches, extremi	y flaggy clay loam, 70% fragme	nts.	
	fine, mixed, mesic Typic Haplud	dolls, 5 percent slope.	
A Horizon: 9 inches, very grav			
B Horizon: 20 inches, gravely	silt loam, 10% fragments.		
an-10 CSR 40-1	10.020(2)(D)1.		
A. Topsoil			
Average Depth of Topsoil, Prior to Land		Is Topsoil to be Sold or Discarde	d Offsite?
	6Inches	Yes or X No	
Describe Methods and Equipment Used	tor ropson Removal		
and B horizons to reduce the p	vith scrapers, loaders and dump ercent of rock fragments. Soil m		
saved.			
!			
Describe Methods and Equipment Used	d for Topsoil Storage and Protection	34.24	
	and respective		
Soil material will be stockpiled	within the permitted area and se	eded with Mix A to prevent er	osion. If possible
soil material will be hauled dire	ectly to reclamation sites.	•	
1			1

MO 780-1327 (12-91)

3. Sp	oil		
Descri	be Meth	ods and Locations of Spoil Placement and Disposal	
Thes	e mate	als that contain excess fragments, lower soil horizons and waste rock will be referre rials will be used as a base below soil replacement areas, to reduce highwalls, stoon fill or placed in permanent disposal areas. The disposal areas will be active for the	ckpiled as
. Ac	id Ma	terials	
Descr	ibe Meth	ods and Equipment Used for Handling Acid Material (If None is Anticipated, Write "None" Below)	
Non	е		
) Pi	t Infor	mation (Give All Dimensions in Feet)	
		ion and Orientation of Pit, If Not Clear on Site Maps	
See	Мар		
	•		
			1
es/	No		
	X	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?	
	X	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of-way of any public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may start near the right-of-way, and in no case may the excavation be closer to the right-of-way than fifty feet	RECEIVED  MISSOURI LAND  RECLAMATION COMMISSION
		or twenty-five feet plus one and one-half (1-1/2) times the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Commission.)	11 001 3 4 1990
	1		MISSOURI LAND
	<b>X</b>	Will any excavation start at or within fifty feet (50') of any property line?  (NOTE: If the answer is "yes", a safety barrier may be needed.)	RECLAMATION COM
		,	
10 780-	1327 (12-9	1)	Page 2 of 5

**Protem** 

Permit #287

Revised 09/25/96

		Protem $R_{00x}^{ECEIVE}$
levised 10/17/96	Permit #287	Protem 1 00 F
Reclamation Plan-10 C	SR 40-10.020(2)(D)2.	21.10
. Revegetation (Attac	ch additional sheets, if needed)	1996
evegetation Mix #1	Purpose Or Land Use	Seeding Or Planting Curben A Pro-
Α	Temporary Cover	Seeding Or Planting Cibana MISSOURI LAND AS Needed TON COMMISSION
escribe Methods and Equir	ment to be Used for Seeding or Planting	MSSION

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	oecies	Stems/Acre
Smooth Bromegrass and	12			
Perennial Ryegrass	12			
or Fescue	25			
Annual Ryegrass	50			
			<del></del>	
Revegetation Mix #2	Purpose Or Land Use		1	Planting Time
В	All land uses exce	ept impoundments	Fall, Sp	ring & Frost

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
Ladino Clover	8		
Crown Vetch			
Smooth Bromegrass	12		
Orchardgrass	12		
Perennial Ryegrass	12		
Annual Ryegrass	50		
			1

Revised 10/10/96	Permit #287	Protem	
Reclamation Plan-10 CS	R 40-10.020(2)(D)2.		
A. Revegetation (Attach	additional sheets, if needed)		
Revegetation Mix #3	Purpose Or Land Use	Seeding Or Planting Time	
С	All Land uses except impoundments	Winter and Spring	

Describe Methods and Equipment to be Used for Seeding or Planting

The seed mix will be broadcast on areas with sufficient cover to prevent erosion that have been seeded with mix A or B. On areas where the soil is slightly acidic or has low fertility this mix is expected to become dominant.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Big Bluestem	3			
Indiangrass	3			j
Little Bluestem	3			
Sideoats Grama	3			į
Switchgrass (common)	3			
Forbs Mix	0.75			
Redtop	8			
Revegetation Mix #4	Purpose Or Land Use		Seeding O	r Planting Time
D	All land uses excep	ot impoundments	Spring	

Describe Methods and Equipment to be Used for Seeding or Planting

Tree seedlings will be added to areas with sufficient cover to pervent erosion.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
		Jack Pine, Red Pine, Persimmon, Red Mulberry, Hackberry, Shrub Lespedeza and/or Hazelnut	700

Attach Additional Sheets For Additional Seed Mixes

RECEIVE ]

Revised	09/30/96

Permit #287

Protem

### B. Grading

Describe Proposed Reclaimed Topography, Including Slopes

The spoil consist of soil horizons with greater than 25 percent fragments and waste rock. Typically all voids are filled with soil size particles resulting in a good root growth material. The spoil will be used to cover highwalls, create natural areas or to reduce the depth of the pit floor. Soil material with less than 25% fragments will be redistributed at a thickness of 12 inches on locations that are expected to have a udic (free draining) soil environment and slopes of 3:1 or less.

Areas exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with soil material after covering areas of lesser slope, these areas will always have at least 24 inches of root growth material. At no time will the slope of the material be artificially increased beyond that at which the material is naturally stable.

All other areas not exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with a layer of soil material, as available to a minimum thickness of 12 inches. The slopes will be 5:1 or less.

If an area is not conducive to vegetation it will be covered with coarse aggregate, (Examples: columnar weathering above a highwall, parking areas, spillways, etc.).

Grading	
10 CSR 40-10.050(10)(A) Grading will be completed within twelve (12) months after the extended as a part of the active operation of the site.	xpiration or renewal of the permit on areas no
Replacement of Topsoil	
10 CSR 40-10.050(10)(A) Topsoil replacement will be completed within twelve (12) month on areas no longer needed as a part of the active operation of the	· · · · · · · · · · · · · · · · · · ·
Revegetation	DE C. D.
Initial revegetation will occur during the first year after grading a	and soil replacement.  RECETY UUT 4 1998
	MISSOURIAND
	MISSOURITAND RECLAMATION COM
Average Depth of Replaced Topsoil (Inches) 12 inches of soil m	MISSOURITAND RECLAMATION COM
Average Depth of Replaced Topsoil (Inches) 12 inches of soil m  D. Use of Land When Reclaimed	MISSOURITAND RECLAMATION COMM
Average Depth of Replaced Topsoil (Inches)  12 inches of soil m  D. Use of Land When Reclaimed  Estimated acreage of each land use below, after reclamation	MISSOURITAND RECLAMATION COMM
Average Depth of Replaced Topsoil (Inches)	MISSOURITAND RECLAMATION COMM

Water Impoundments (for wildlife, agricultural, or development)

## By my signature, I attest to the following:

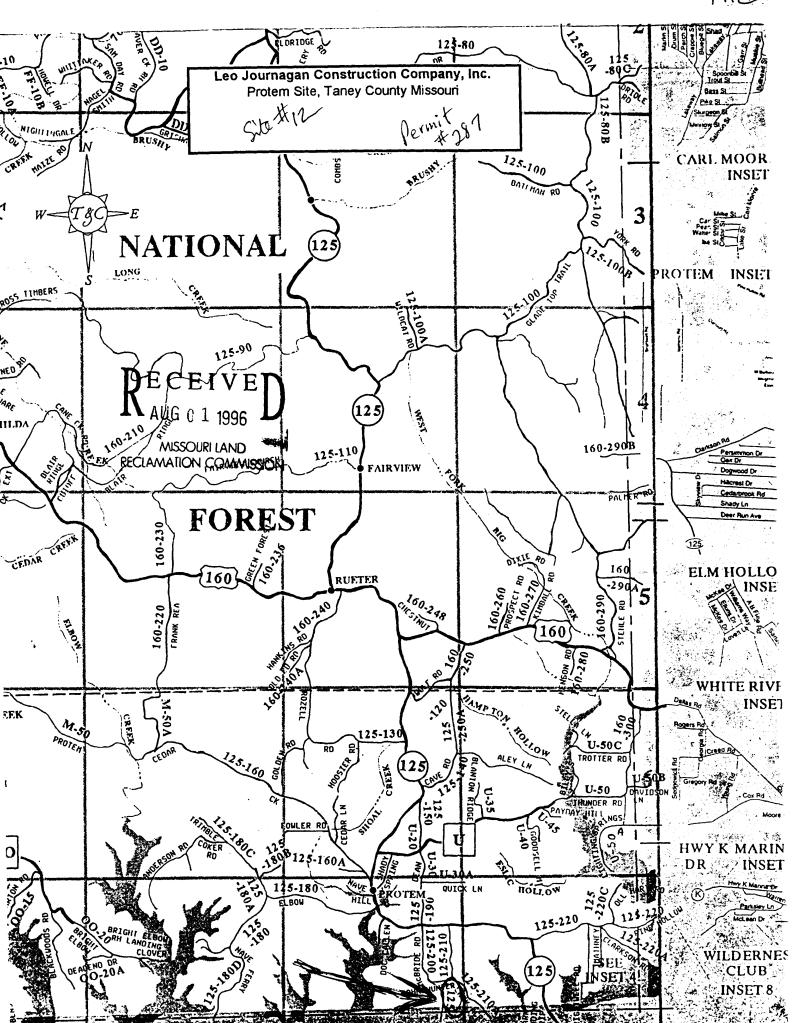
37 8 W

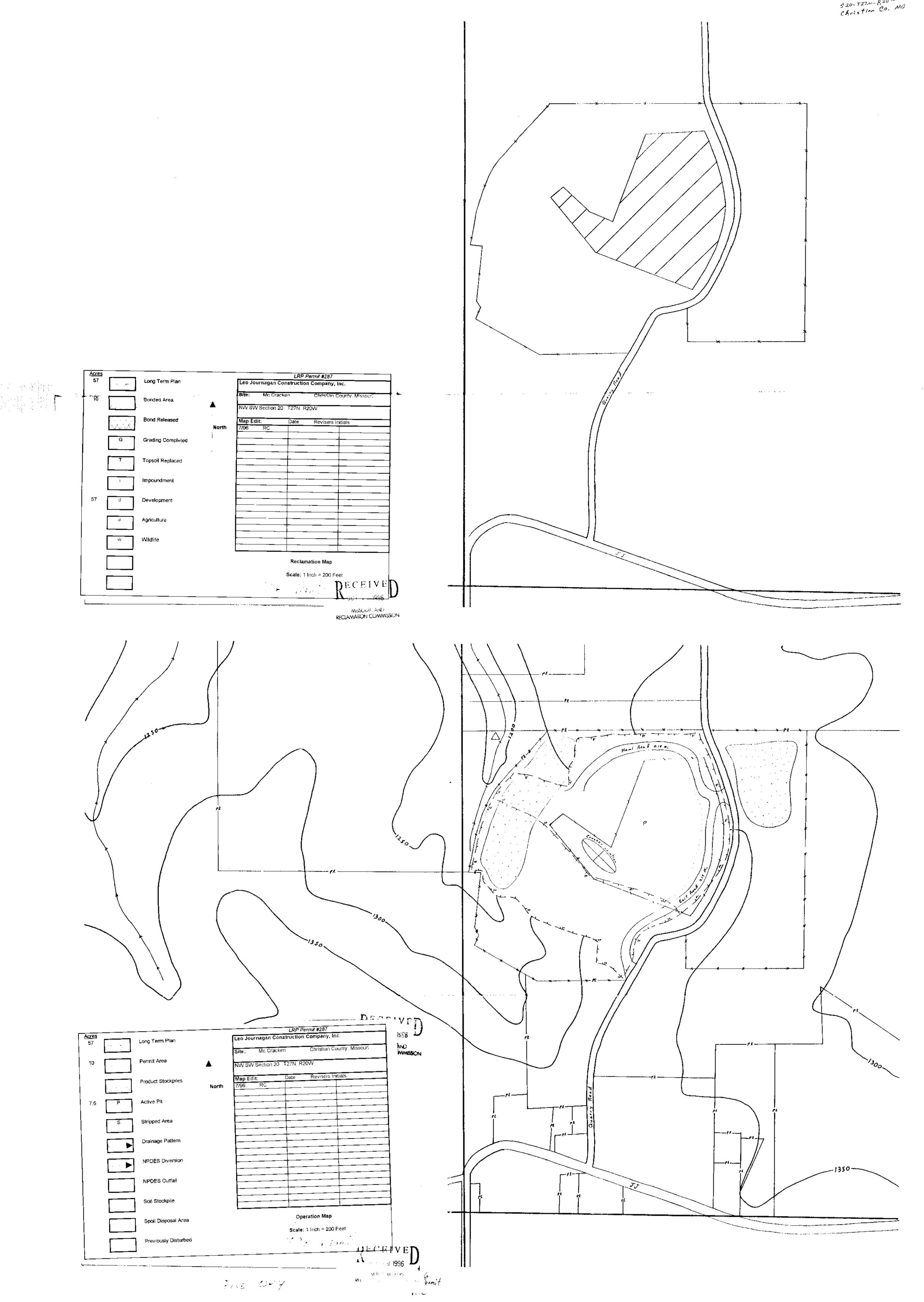
- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Section 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained ate approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and futher where I have no such right, I have attached signed affidavits from the landowneds, granting such access.

Signature of Applicant	Title 5	annontal Contanist	Date 7/29/96
Notary Public Embosser Seal	Subscribed and Sworn Before me, The Subscribed and Sworn Before me	19 96 My Commission Expires  11 - 4 - 99	County (Or City of St. Louis)  Use Rubber Stamp Below  NINA I CRAIGHEAD  NOTARY PUBLIC STATE OF MISSOUR  GREENE COUNTY  MY COMMISSION EXP NOV 4,1999
Approved By (Director's F		Date Approved  1/~ 22-	Permit Number C 287

MO 780-1327 (12-91)

Page 5 of 5





## MISSOURI DEPARTMENT OF NATURAL RESOURCES LAND RECLAMATION COMMISSION

## FILE

## SITE INFORMATION FORM

To be completed for each separte area	of disturbance as	ssociated with	mining operations.	
SITE NAME OR NUMBER			PERMIT NUMBER	
Ozark			287	,
COMPANY NAME				
Las Jaumagas Construction Company	Ino			
Leo Journagan Construction Company	1/4 SECTION		SECTION	
Christian TOWNSHIP	NE NW RANGE		33 34 ACRES	
TOWNSHIP	RANGE		ACRES	
28N	21W		124	
RIVER OR STREAM NA DR IN-STREAM A	(CRES)			
_				
MINERAL COMMO			ESTIMATED TONS/YEAR	(FOR GRAVEL SITES)
Limestone				
Limestone				
NAME OF LANDOWNER (ATTACH LIST IF MO	RE THAN ONE)			
Les Journages Construction Company	· Ino			
Leo Journagan Construction Company ADDRESS	, Inc.			
3003 East Chestnut Expressway, Suite				Tain CODE
CITY F	STATE			ZIP CODE
Springglield	МО			65802
SOURCE OF RIGHT TO MINE (CHECK ONE):				DATE OF AGREEMENT
MINERAL DEED		LEASE		NA
WARRANTY DEED		VERBAL AG	REEMENT	
_				!
OTHER(DESCRIBE):				
MINERAL RIGHTS OWNER (ATTACH LIST IF N	MORE THAN ONE)			
			•	
Leo Journagan Construction Company	, Inc.			
ADDRESS				
3003 East Chestnut Expressway, Suite	÷ 1 <u>200</u>			
CITY	STATE			ZIP CODE
Springdield	МО			65802
SOURCE OF RIGHT TO MINE (CHECK ONE):				DATE OF AGREEMENT
	1	□		240/05
MINERAL DEED		LEASE		3/16/95
☑ WARRANTY DEED		VERBAL AG	SREEM <b>EN</b> T	
OTHER(DESCRIBE):				
NOTE: Each site must be shown on a	map and be inclu	uded in a publi	c notice and an approv	ed mine plan.

MO 780-1036 (12-91)

## Page 1 of 5

Missouri Department Of Natural Resources

MO 780-1327 (12-91)

P.O. Box 176



Page 1 of 5

Land Reclamation Program  Mine Plan	Revised 07/16/96	Permit #287	Jefferson City, MO 65102
Short Term, For One Permit Year	Revised 07/10/90	Permit #20	
Long Term, For Period Through Date	e: 31-Jul-0	7	<del>-#</del>
		(By Applicant or	Prior Operator) Including Soil, Vegetation and
Vegetation: Hardwood forest a Soil and Topography: Goss Series, : Clayay-skeletal, A Horizon: 10 inches, very chell B Horizon: 52 inches, very chell	, mixed, mesic Typic P rty silt loam, 25 percer	nt fragments.	
Operational Plan-10 CSR 40-1 A. Topsoil Average Depth of Topsoil, Prior to Land F	Reclamation Commission Pe	٠ .	s Topsoil to be Sold or Discarded Offsite?
Describe Methods and Equipment Used	for Topsoil Removal	Inches	Yes or X No
Soil material will be removed wi fragments will be saved as soil.	· · · · · · · · · · · · · · · · · · ·	nd dump truc	ks. All soil horizons with less that 25%
			were
Describe Methods and Equipment Used	tor Topsoil Storage and Prot	ection	
Soil material will be stockpiled v soil material will be hauled direc	•		d with Mix A to prevent erosion. If possible
I			

Revised 09/	25/96 Permit #287	Ozark	
B. Spoil			
	ods and Locations of Spoil Placement and Disposal		
Soil materia	als that contain excess fragments, lower soil horizons and waste rock will l	pe referred to as spoil.	
	erials will be used as a base below soil replacement areas, to reduce high		
	n fill or placed in permanent disposal areas. The disposal areas will be ac		
	Tilli of placed in permanent disposal areas. The disposal areas will be ac	ave for the chare line of	
the mine.		!	
C. Acid Ma			
Describe Meth	ods and Equipment Used for Handling Acid Material (If None is Anticipated, Write "None" Below	)	
None			
D. Pit Infor	mation (Give All Dimensions in Feet)		
	tion and Orientation of Pit, If Not Clear on Site Maps		
	1,000		
See Map			
•			
1			
Yes No			
X	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?	Doggan	
		RECEI'	VЕГ
<b>X</b>	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of-wa	ay of any	
		<b>I</b> i i i i i i i i i i i i i i i i i i	aac L
	public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty		JJU
	start near the right-of-way, and in no case may the excavation be closer to the right-of-way that	AMISS/ YUDI I	/ NID
	or twenty-five feet plus one and one-half (1-1/2) times the depth of unconsolidated material, when the depth of		
	greater, unless a variance is granted by the Commission.)	RECLAMATION CO	NANAN22HQ
X	Will any excavation start at or within fifty feet (50') of any property line?		
	(NOTE: If the answer is "yes", a safety barrier may be needed.)		
	, , , , , , , , , , , , , , , , , , ,		

Revised 10/10/96	Permit #287	Ozark
Reclamation Plan-10 CS	R 40-10.020(2)(D)2.	
A. Revegetation (Attach	additional sheets, if needed)	
Revegetation Mix #3	Purpose Or Land Use	Seeding Or Planting Time
С	All Land uses except impoundments	Winter and Spring

Describe Methods and Equipment to be Used for Seeding or Planting

The seed mix will be broadcast on areas with sufficient cover to prevent erosion that have been seeded with mix A or B. On areas where the soil is slightly acidic or has low fertility this mix is expected to become dominant.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Big Bluestem	3			
Indiangrass	3			
Little Bluestem	3			
Sideoats Grama	3			
Switchgrass (common)	3			
Forbs Mix	0.75			
Redtop	8			
Revegetation Mix #4	Purpose Or Land Use		Seeding Or	Planting Time
D	All land uses exce	All land uses except impoundments		

Describe Methods and Equipment to be Used for Seeding or Planting

Tree seedlings will be added to areas with sufficient cover to pervent erosion.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
		Jack Pine,	
		Red Pine,	
		Persimmon,	
		Red Mulberry,	700
		Hackberry,	
		Shrub Lespedeza and/or	
		Hazelnut	

Attach Additional Sheets For Additional Seed Mixes

 $R_{rac{007}{1}rac{5}{1}rac{1996}{9}}^{ECEIVE}$ 

Reclamation Plan-10 CSR 40-10.020(2)(D)2.

A. Revegetation (Attach additional sheets, if needed)

Revegetation Mix #3 Purpose Or Land Use Seeding Or Planting Time
C All land uses except impoundments Winter and Spring

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies S	Stems/Acre
Big Bluestem	3			
Indiangrass	3			
Little Bluestem	3		1	
Sideoats Grama	3			
Switchgrass	3			
Forbs Mix	0.75		!	
Redtop	8			
Revegetation Mix #4	Purpose Or Land Use	· · · · · · · · · · · · · · · · · · ·	Seeding Or Plai	nting Time
D	All land uses exce	pt impoundments	Spring	

Describe Methods and Equipment to be Used for Seeding or Planting

Tree seedlings will be added to areas planted in mixes B and C.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
		Jack Pine,	
		Red Pine,	
		Persimmon,	
		Red Mulberry,	700
		Hackberry,	
		Shrub Lespedeza and/or	PEGELVED
		Hazelnut	DECEIVE
			- 1000

MISSOURI LAND RECLAMATION COMMUNICATION Page 3 of 5

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w	$\Delta VI$	CO	7 ()	ıu/	'4I I	/96
	CV	30			-	

Permit #287

Ozark

Page 4 of 5

#### B. Grading

Describe Proposed Reclaimed Topography, Including Slopes

Water Impoundments (for wildlife, agricultural, or development)

MO 780-1327 (12-91)

The spoil consist of soil horizons with greater than 25 percent fragments and waste rock. Typically all voids are filled with soil size particles resulting in a good root growth material. The spoil will be used to cover highwalls, create natural areas or to reduce the depth of the pit floor. Soil material with less than 25% fragments will be redistributed at a thickness of 12 inches on locations that are expected to have a udic (free draining) soil environment and slopes of 3:1 or less.

Areas exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with soil material after covering areas of lesser slope, these areas will always have at least 24 inches of root growth material. At no time will the slope of the material be artificially increased beyond that at which the material is naturally stable.

All other areas not exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with a layer of soil material, as available to a minimum thickness of 12 inches. The slopes will be 5:1 or less.

If an area is not conducive to vegetation it will be covered with coarse aggregate, (Examples: columnar weathering above a highwall, parking areas, spillways, etc.).

C. Describe The General Sequence and Timing of the Following Activitie	s
Grading	
10 CSR 40-10.050(10)(A)&(C) Grading will be completed within twelve (12) months after the expiration or re	newal of the permit on areas no
longer needed as a part of the active operation of the site.	noval of the permit of areas no
Replacement of Topsoil	
10 CSR 40-10.050(10)(A)  Topsoil replacement will be completed within tuplyo (12) months after the extension of the complete o	piration or rangual of the normit
Topsoil replacement will be completed within twelve (12) months after the exponent areas no longer needed as a part of the active operation of the site.	orration or renewal of the permit
Revegetation	DECE
Initial revegetation will occur during the first year after grading and soil replac	OCT 9 4 1996
Average Depth of Replaced Topsoil (Inches)  12 inches of soil material	RECIAMATION COMMISSIC
D. Use of Land When Reclaimed	Estimated Acres:
Estimated acreage of each land use below, after reclamation	
Wildlife (forest or other habitat with livestock excluded)	
Agriculture (pasture, cropland, and horticultural)	
Development (residential, industrial, and recreational)	105
	1

Perm	it	#28	7
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MO 780-1327 (12-91)

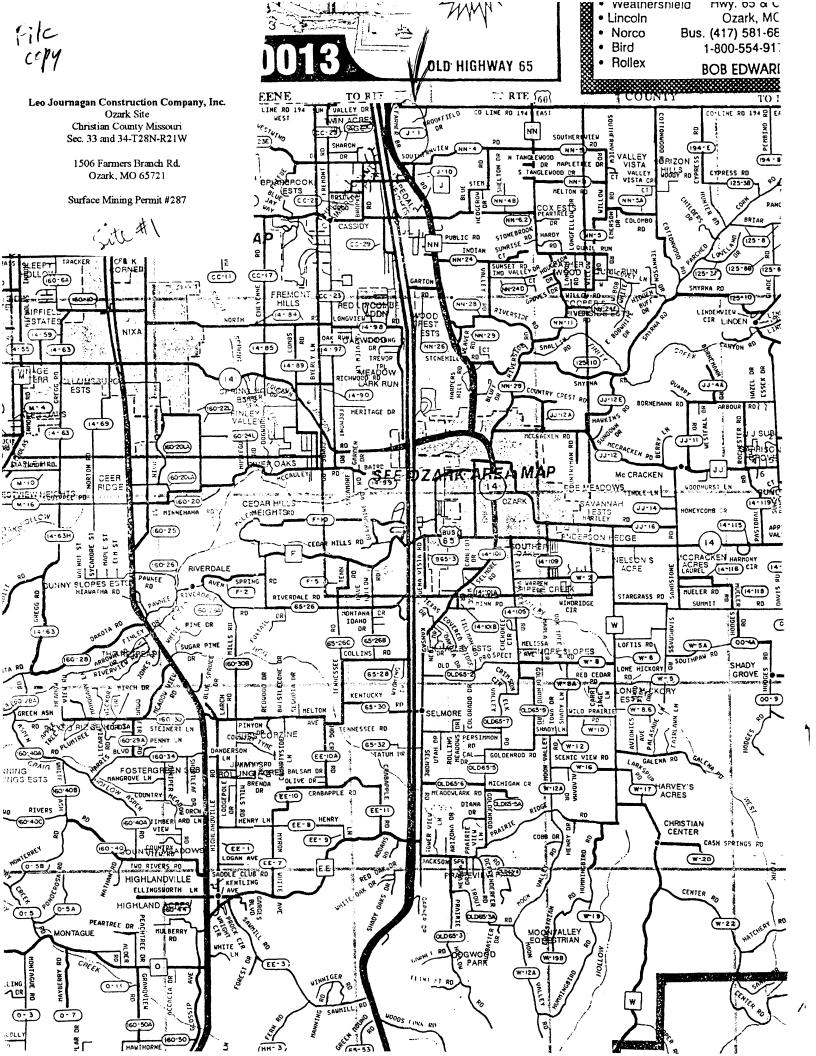
Ozark

### By my signature, I attest to the following:

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Section 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained the approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and futher where I have no such right, I have attached signed affidavits from the landowneds, granting such access.

Signature of Applicant Mussell	awley	Fittle Env. Sed	ogist	Date / / 16 / 9 6	
Notary Public Embosser Seal	State MOS Subscribed and Sworn Before Day Ot	ore me, This		 	
(	Notary Public Signature  Notary Public Name (Typed	2-	1976 mission Expires	JOHN A VIEW II OTARY PUBLIC — NOTA STATE OF MISSOU CHRISTIAN COUN IY COMMISSION EXP. FI	ARY SEAL RI TY
Approved By (Director's Rep	oresentative)	Date App	proved - 22 - 4	Permit Number 0287	•

Page 5 of 5





## MISSOURI DEPARTMENT OF NATURAL RESOURCES LAND RECLAMATION COMMISSION

LAND RECLAMATION COMMISSIC SITE INFORMATION FORM	N 料 好 Z		KECEIVE
To be completed for each separte ar		ated with mining operations.	AUG & 1 1996
		PERMIT NUMBER	MISSOURLAND
Reeds Spring Site	· #5	287	RECLAMATION COMMISSION
COMPANY NAME		201	
Leo Journagan Construction Compa	ny Inc		
COUNTY	1/4 SECTION	SECTION	
Stone		23	
TOWNSHIP	RANGE	ACRES	
24N	23W	100	
ER OR STREAM NAME (FOR IN-STREAM	M ACRES)		
MINERAL COMMODITY		ESTIMATED TONS/	/EAR (FOR GRAVEL SITES)
Limestone			
NAME OF LANDOWNER (ATTACH LIST IF N	MORE THAN ONE)		
Billy Taylor			
ADDRESS			
General Delivery			
CITY	STATE		CODE
Reeds Spring	Missouri		65737
SOURCE OF RIGHT TO MINE (CHECK ONE	Ξ):		DATE OF AGREEMENT
MINERAL DEED	<b>⊠</b> 1	LEASE	1/3/91
WARRANTY DEED		VERBAL AGREEMENT	
OTHER(DESCRIBE):			
MINERAL RIGHTS OWNER (ATTACH LIST	IF MORE THAN ONE)		
Billy Taylor			
ADDRESS	·		
General Delivery			
CITY	STATE		ZIP CODE
Reeds Spring	Missouri		65737
SOURCE OF RIGHT TO MINE (CHECK ONE			DATE OF AGREEMENT
MINERAL DEED	<b>⊠</b> ı	LEASE	1/3/91
WARRANTY DEED	<u></u>	VERBAL AGREEMENT	
OTHER(DESCRIBE):			

NOTE: Each site must be shown on a map and be included in a public notice and an approved mine plan.

MO 780-1036 (12-91)

## MISSOURI DEPARTMENT OF NATURAL RESOURCES

MISSOURI DEPARTMENT OF NATU LAND RECLAMATION COMMISSION SITE INFORMATION FORM &	l	S		RECEIVE D
To be completed for each separte are	a of disturbance as	sociated with	mining operations.	MISSOURLIAND
SITE NAME OR NUMBER			PERMIT NUMBER	RECLAMATION COMMISSION
Reeds Spring			287	
COMPANY NAME				
Leo Journagan Construction Company				
COUNTY	1/4 SECTION		SECTION	
Stone	SW	<i>l</i>	23	
TOWNSHIP	RANGE		ACRES	
24N RIVER OR STREAM NAME (FOR IN-STREAM	23V	<u>V</u>	11	
MINERAL COMMODITY  Limestone  NAME OF LANDOWNER (ATTACH LIST IF MC	PRE THAN ONE)			AR (FOR GRAVEL SITES)
Garth Mease (Jim Mease)  ADDRESS			_	
General Delivery	STATE			
				1 1
Reeds Spring SOURCE OF RIGHT TO MINE (CHECK ONE):	Missouri			65737 DATE OF AGREEMENT
MINERAL DEED		<b>LEASE</b>		10/10/94
☐ WARRANTY DEED		VERBAL A	GREEMENT	
OTHER(DESCRIBE):				
MINERAL RIGHTS OWNER (ATTA * 41 IST	N sections)			
Garth Mease (Jim Mease) ADDRESS				
General Delivery				
CITY	STATE			
Reeds Spring	Missouri			65/3/
SOURCE OF RIGHT TO MINE (CHECK ONE):				DATE OF AGREEMENT
MINERAL DEED		<b>X</b> LEASE		10/10/94
WARRANTY DEED		VERBAL A	GREEMENT	
OTHER(DESCRIBE):				

NOTE: Each site must be shown on a map and be included in a public notice and an approved mine plan.

MO 780-1036 (12-91)

BOOK 244 PAGE 1292

UG 2 1 1996 Stone County Publishing Co., Crane, Mo.

## MISSOURI'LAND

# RECLAMATION COMMISSION

## CLAIM DEED

THIS INDENTURE made on the

1st

day of

September

1994 , by and between

VIRGINIA LUTES, a single person

Route 1, Box 1, Reeds Spring, MO

of the first part, and

PATRICIA GOSSIN

P.O. Box 48, Crane, MO 65633

of the county of Stone

of

in the state of Missouri

, party of the second part,

WITNESSETH, That the said part y of the first part, for and in consideration of the sum of

ONE DOLLAR and other valuable consideration

her paid by the said part Y of the second part the receipt of which is hereby acknowledged, do es

these presents, Remise, Release and forever Quit-Claim unto the said part Y

of the second part, the following described Lots.

Tracts or Parcels of land lying, being and situate in the county of

STONE

and State of Missouri, to-wit:

All right, title and interest in mineral lease with Jim Mease and-Mary Mease dated January 18, 1962, covering the East One-half of the Northwest Quarter (East 1/2 of the NW1), and the Northeast Quarter of the Southwest Quarter (NEt of the SWt), all in Section 23, Township 24, Range 23, Stone County, Missouri, containing 120 acres, more or less; and all right, title and interest in and to a Quarry Lease covering the above-described property with Leo Journagan Construction Company, Inc., as lessee, dated June 26, 1994.

Grantor states that she is the widow of Samuel T. Lutes, who died August 19. 1971, the two not having been divorced, and that she is the sole surviving owner of Samuel T. Lutes Sand and Gravel Company, Reeds Spring, Missouri.

<u>ንነዚ አንልሄር</u> ኢ<u>ስዜአሄ</u>ቷ ሂ <u>እዕ</u>ያረለለተርዕፅ ሂነት፤ አካፋ ጸላ ኔቴኔዜና ለቦ ልንፋሎረፋተፈና ሐቪር ብ*ፅር*ና ጸራ ሌቆፈና ፈ ፈተዋሳ

*POLY KRYPHY* 

XXXXXXX

************** 

**XXXXXX** 

* KXX

TO HAVE AND TO HOLD the same with all rights, immunities, privileges and appurtenances thereto belonging, unto the said successors

party of the second part, her

XNOWA and assigns forever so that neither the said part Y of the first part nor

her

SUCCESSORS XXXIIIs nor any other person or persons for

her

her or in

name or behalf shall or will

hereafter claim or demand any right or title to the aforesaid premises or any part thereof; but they and every one of them shall be,

## Page 1 of 5

Revised 07 <i>l221</i> 96 Permit #287 Missouri Department Of Natural Resources Land Reclamation Program	Reeds Spring 5, /e ‡ P.O. Box 176  Jefferson City, MO 65102
Mine Plan	
Short Term, For One Permit Year	
Long Term, For Period Through Date: 31-Jul-07	
Description of Site Prior to Land Reclamation Commission Permitting (By Applica Topography.	ant or Prior Operator), Including Soil, Vegetation and
Vegetation: Hardwood forest.	
Soil and Topography:	
Blueye Series: Clayay-Skeletal, mixed, mesic Lithic Hapludolls	s, 5 to 30 percent slope.
A Horizon: 9 inches, gravelly silt loam, 20% fragments.	
B Horizon: 30 inches, gravelly clay, 30% fragments.	
Operational Plan-10 CSR 40-10.020(2)(D)1.	
A. Topsoil	The second secon
Average Depth of Topsoil, Prior to Land Reclamation Commission Permitting	Is Topsoil to be Sold or Discarded Offsite?
9Inches	Yes or Y No
Describe Methods and Equipment Used for Topsoil Removal	
Soil material will be removed with scrapers, loaders and dump and B horizons to reduce the percent of rock fragments. Soil maked.	
l	
Describe Methods and Equipment Used for Topsoil Storage and Protection	İ
Soil material will be stockpiled within the permitted area and se soil material will be hauled directly to reclamation sites.	eded with Mix A to prevent erosion. If possible
MO 780-1327 (12-91)	Page 1 of 5

Permit	#28
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Reeds Spring

Rev	viseu	US/	2015
В.	Spo	oil	

Describe Methods and Locations of Spoil Placement and Disposal

Soil materials that contain excess fragments, lower soil horizons and waste rock will be referred to as spoil. These materials will be used as a base below soil replacement areas, to reduce highwalls, stockpiled as construction fill or placed in permanent disposal areas. The disposal areas will be active for the entire life of the mine.

RECEIVE D

MISSOURI LAND

RECLAMATION COMMISSION

		RECLAMATION COMMI
C. Acid	d Mat	terials
Describe	Metho	ods and Equipment Used for Handling Acid Material (If None is Anticipated, Write "None" Below)
None		
D. Pit I	nfori	mation (Give All Dimensions in Feet)
Describe	e Locat	tion and Orientation of Pit, If Not Clear on Site Maps
See M	an	
000 111	ар	
Yes I	No	
	X	Will any excavation be at or within fifty feet (50') of the right-of-way of any public road?
7	X	Will any highwall consisting of unconsolidated materials be left within fifty feet of the right-of-way of any
		public road? (NOTE: For unconsolidated materials left in place, a slope of no more than forty degrees may
		start near the right-of-way, and in no case may the excavation be closer to the right-of-way than fifty feet
		or twenty-five feet plus one and one-half (1-1/2) times the depth of unconsolidated material, whichever is
		greater, unless a variance is granted by the Commission.)
	X	Will any excavation start at or within fifty feet (50') of any property line?
_		(NOTE: If the answer is "yes", a safety barrier may be needed.)

Revised 10/17/96	Permit #287	Reeds

N OCT 21 1996

Revised 10/17/96	Permit #287	Reeds Spring Alleca
Reclamation Plan-10 C	SR 40-10.020(2)(D)2.	RECIAMARO LAND
A. Revegetation (Attac	ch additional sheets, if needed)	RECLAMATION COMMISSIO
Revegetation Mix #1	Purpose Or Land Use	Seeding Or Planting Time
Α	Temporary Cover	<b>N.s-Needed</b>

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Smooth Bromegrass and	12			
Perennial Ryegrass	12			
or Fescue	25			
Annual Ryegrass	50			
Revegetation Mix #2	Purpose Or Land Use		Seeding Or P	lanting Time
В	ł '	All land uses except impoundments		ng & Frost

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
Ladino Clover or	8		}
Crown Vetch			}
Smooth Bromegrass	12		·
Orchardgrass	12		į
Perennial Ryegrass	12		
Annual Ryegrass	50		

Describe Methods and Equipment to be Used for Seeding or Planting

The seed mix will be broadcast on areas with sufficient cover to prevent erosion that have been seeded with mix A or B. On areas where the soil is slightly acidic or has low fertility this mix is expected to become dominant.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the re-establishment of native species.

Seeded Species	re Tree or Shruk	Species Stems/Acre
Big Bluestem	3	
Indiangrass	3	
Little Bluestem	3	
Sideoats Grama	3	
Switchgrass (common)	3	
Forbs Mix	0.75	
Redtop	8	
Revegetation Mix #4	Purpose Or Land Use	Seeding Or Planting Time
D	All land uses except impoundments	Spring

Describe Methods and Equipment to be Used for Seeding or Planting

Tree seedlings will be added to areas with sufficient cover to pervent erosion.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
		Jack Pine, Red Pine, Persimmon, Red Mulberry, Hackberry, Shrub Lespedeza and/or Hazelnut	700
Attach Additional Sheets F	For Additional Seed Mixes	RECEIVE OCT 1 5 1996	D

Page 3 of 5

Permit #287		Pe	rmi	it a	<b>#2</b>	87	
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**Reeds Spring** 

Page 4 of 5

## Revised 09/30/96 B. Grading

MO 780-1327 (12-91)

Describe Proposed Reclaimed Topography, Including Slopes

The spoil consist of soil horizons with greater than 25 percent fragments and waste rock. Typically all voids are filled with soil size particles resulting in a good root growth material. The spoil will be used to cover highwalls, create natural areas or to reduce the depth of the pit floor. Soil material with less than 25% fragments will be redistributed at a thickness of 12 inches on locations that are expected to have a udic (free draining) soil environment and slopes of 3:1 or less.

Areas exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with soil material after covering areas of lesser slope, these areas will always have at least 24 inches of root growth material. At no time will the slope of the material be artificially increased beyond that at which the material is naturally stable.

All other areas not exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with a layer of soil material, as available to a minimum thickness of 12 inches. The slopes will be 5:1 or less.

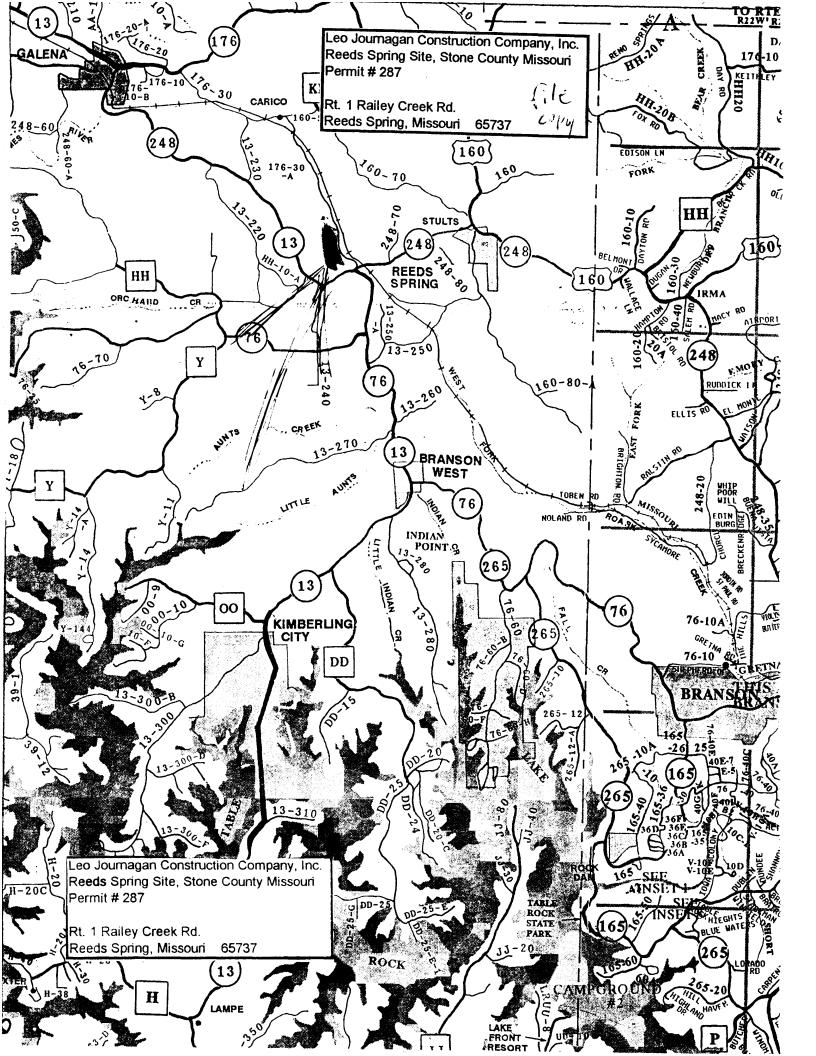
If an area is not conducive to vegetation it will be covered with coarse aggregate, (Examples: columnar weathering above a highwall, parking areas, spillways, etc.).

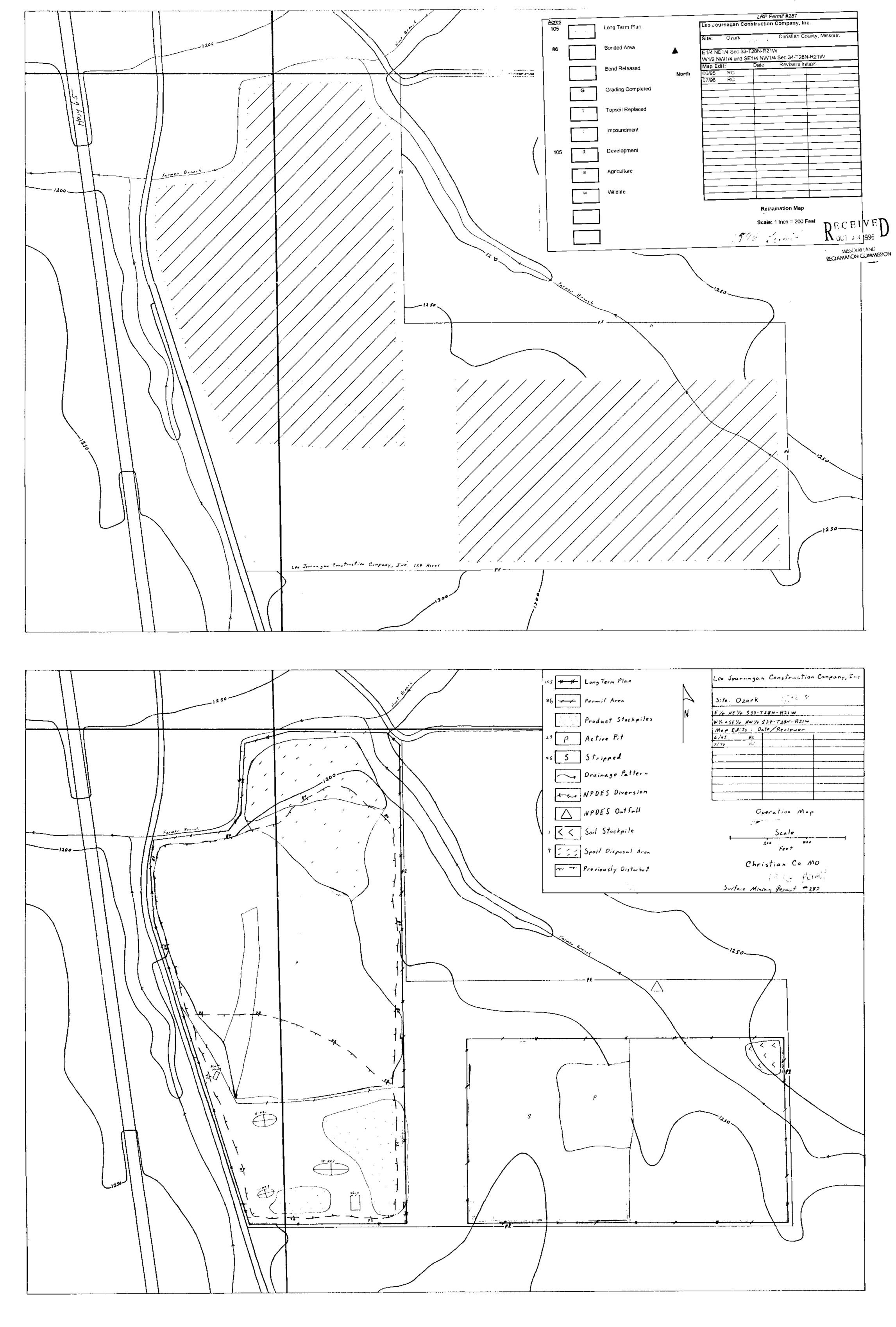
C. Describe The General Sequence and Timing of the Follo	wing Activities
Grading	
10 CSR 40-10.050(10)(A)	
Grading will be completed within twelve (12) months after the e	xpiration or renewal of the permit on areas no
longer needed as a part of the active operation of the site.	
Replacement of Topsoil	
10 CSR 40-10.050(10)(A) Topsoil replacement will be completed within twelve (12) month on areas no longer needed as a part of the active operation of the	
Revegetation	DECE
Initial revegetation will occur during the first year after grading a	and soil replacement. RECEIVE
· 	MISSOURI LAND
Average Depth of Replaced Topsoil (Inches)	RECLAMATION COMMISSION
12 inches of soil m	naterial
D. Use of Land When Reclaimed	Estimated Acres:
Estimated acreage of each land use below, after reclamation	
Wildlife (forest or other habitat with livestock excluded)	
Agriculture (pasture, cropland, and horticultural)	
Development (residential, industrial, and recreational)	111
Water Impoundments (for wildlife, agricultural, or development)	

### By my signature, I attest to the following:

- 1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
- 2. I or the company I am authorized to represent intend(s) to mine in accordance with this Mine Plan Form, and in accordance with the Missouri Land Reclamation Act, Section 444.760 through 444.789, RSMo (Supp. 1990), and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
- 3. I have obtained ate approval of all landowner's for all proposed post-reclamation land uses.
- 4. I have a valid agreement with all landowners which gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and his authorized representatives, and I grant such access, and futher where I have no such right, I have attached signed affidavits from the landowneds, granting such access.

Signature of Applicant	Title		Date
Russell (	$Q_{\alpha}$	nental Geologist	7/22/96
Notary Public Embosser Seal	State		County (Or City of St. Louis)
	Subscribed and Sworn Before me, This		Greene
	22 Day Of Only	19 96	Use Rubber Stamp Below
	Notary Public Signature	My Commission Expires	
	Mina & Claike	11-4-99	NINA I CRAIGHEAD NOTARY PUBLIC STATE OF MISSOUR
	Notary Public Name (Typed or Printed)  Ning + Croig	. 1	MY COMMISSION EXP NOV 4,1999
Approved By (Director's R		Date Approved	Permit Number
Coma	R. Milnown		0287
MO 780-1327 (12-91)			Page 5 of 5





Page 1 of 5

## Page 1 of 5

MO 780-1327 (12-91)

	3			Box 176	
Land Reclamation Program	Deviced 07/40/06	Dormit #00		son City, MO 65102	
Mine Plan Short Term, For One Permit Year	Revised 07/12/96	Permit #28	<u>′</u>	Shell Rock	
X Long Term, For Period Through Date:	31-Jul-07	,		⇒;te	# 3
Description of Site Prior to Land Reclama		(By Applicant o	Prior Operator), Inc	luding Soil, Vegetatio	n and
Topography.	_		•		
Vegetation: Hardwood Forest.					
Soil and Topography:	tal mivad macialithi	a Hanludalfe	· 45 nercent cla		
MokoSeries, 50%: Loamy-skele A Horizon: 3 inches, very friable	· ·	•	•	ipe.	
B Horizon: 7 inches, very friable		•	-		
	c very naggy sitty clay	iodin, 40 pc	icent nagments		
Ocie Series, 50%: Loamy-skele	tal over clavev. mixed.	. mesic Tvpi	c Hapludalfs. 30	percent slope.	
A Horizon: 7 inches, very friable			-	. регосия	
B Horizon: 35 inches, friable ve			-		
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				K	
				ال 🚺 📗	UL 1 5 🏗
				Ū	UIL 1 3 19 MISSOURI L NATION CO
					MISSOURI L
				RECLA	NATION CO
				11200	
Operational Plan-10 CSR 40-10	).020(2)(D)1.				
A. Topsoil					
A. Topsoil  Average Depth of Topsoil, Prior to Land Re	eclamation Commission Perr	mitting	ls Topsoil to be Sold	or Discarded Offsite	?
		mitting nches	Is Topsoil to be Sold	or Discarded Offsite	?
		•			?
Average Depth of Topsoil, Prior to Land Ro	5I or Topsoil Removal	nches	Yes or X	No	
Average Depth of Topsoil, Prior to Land Ro Describe Methods and Equipment Used for Soil material will be removed wit	5 I or Topsoil Removal th scrapers, loaders an	nches nd dump truc	Yes or X	No thin rocky nature	of the soil
Average Depth of Topsoil, Prior to Land Ro Describe Methods and Equipment Used for Soil material will be removed with at this site it is unlikely thatbsalve	5 I or Topsoil Removal th scrapers, loaders an	nches nd dump truc	Yes or X	No thin rocky nature	of the soil
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Revise	ed 09/25/9	6 Permit #287	Shell Rock
B. Spe	oil		
		nd Locations of Spoil Placement and Dispo	sal
These	e materials ruction fill	s will be used as a base below so	ver soil horizons and waste rock will be referred to as spoil. il replacement areas, to reduce highwalls, stockpiled as areas. The disposal areas will be active for the entire life of
i			
C. Ac	id Materia	als	
None		ind Equipment Used for Handling Acid Mat	erial (If None is Anticipated, Write "None" Below)
D Dif	Informat	ion (Give All Dimensions in Fe	et)
		and Orientation of Pit, If Not Clear on Site N	
See I		,	
Yes	No X Wil	any excavation be at or within fifty feet (50	$R^{ECEI}_{007}$ V $E_{007}$ $v_{4}$ 1996
لــا	V i AAH	any excavation be at or within they leet (50	
	P sta or	ublic road? (NOTE: For unconsolidated ma art near the right-of-way, and in no case ma	MISSOURI LAND materials be left within fifty feet of the right-of-way of any terials left in place, a slope of no more than forty degrees may y the excavation be closer to the right-of-way than fifty feet 2) times the depth of unconsolidated material, whichever is commission.)
		/ill any excavation start at or within fifty feet NOTE: If the answer is "yes", a safety barr	

N OCT 21 1996

Davisad	10/17/96	

Revegetation Mix #1

Permit #287

Purpose Or Land Use

Shell Rock

Reclamation Plan-10 CSR 40-10.020(2)(D)2.

RECLAMATION COMMISSION

A. Revegetation (Attach additional sheets, if needed)

nd Use Seeding Or Planting Time
Temporary Cover As Needed

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Smooth Bromegrass and	12			
Perennial Ryegrass	12			
or Fescue	25			
Annual Ryegrass	50			
Revegetation Mix #2	Purpose Or Land Use		Seeding Or	Planting Time
В	All land uses exce	ept impoundments	Fall, Sp	ring & Frost

Describe Methods and Equipment to be Used for Seeding or Planting

Lime and fertilizer will be applied according to recommendations made, based on an analysis of soil texture and nutrients.

Mulch will be applied to all slopes exceeding 5:1.

The seed mix will be broadcast and mulched as needed.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
Ladino Clover or	8		
Crown Vetch			
Smooth Bromegrass	12		
Orchardgrass	12		
Perennial Ryegrass	12		
Annual Ryegrass	50		
	<u> </u>		

Attach Additional Sheets For Additional Seed Mixes

Revised 10/10/96	Permit #287	Shell Roo

Reclamation	Plan-10	CSR	40-10	.020(	(2)	(D)2	

A. Revegetation (Attach additional sheets, if needed)

Revegetation Mix #3	Purpose Or Land Use	Seeding Or Planting Time
С	All Land uses except impoundments	Winter and Spring

Describe Methods and Equipment to be Used for Seeding or Planting

The seed mix will be broadcast on areas with sufficient cover to prevent erosion that have been seeded with mix A or B. On areas where the soil is slightly acidic or has low fertility this mix is expected to become dominant.

All species are not expected to survive on all sites due to differing micro-environments. The mix is intended to provide a plant community that will protect from erosion, aid in soil generation and encourage the reestablishment of native species.

Seeded Species	Pounds/Acre	Tree or Shrub Sp	ecies	Stems/Acre
Big Bluestern	3			
Indiangrass	3			
Little Bluestem	3			
Sideoats Grama	3			
Switchgrass (common)	3			
Forbs Mix	0.75			
Redtop	8			
Revegetation Mix #4	Purpose Or Land Use		Seeding Or f	Planting Time
D	All land uses exce	All land uses except impoundments		

Describe Methods and Equipment to be Used for Seeding or Planting

Tree seedlings will be added to areas with sufficient cover to pervent erosion.

Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
	1	Jack Pine,	
	1	Red Pine,	
		Persimmon,	
	1	Red Mulberry,	700
		Hackberry,	
		Shrub Lespedeza and/or	
		Hazelnut	
		<b>D</b>	

Attach Additional Sheets For Additional Seed Mixes

MISSOURI LAND
RECLAMATION COMMISSION

R	evi	ised	1	O/	1	5	/96	
	CV	JJC U	- 1	u			20	

Permit #287

Shell Rock

#### **B.** Grading

Describe Proposed Reclaimed Topography, Including Slopes

The spoil consist of soil horizons with greater than 25 percent fragments and waste rock. Typically all voids are filled with soil size particles resulting in a good root growth material. The spoil will be used to cover highwalls, create natural areas or to reduce the depth of the pit floor. Soil material with less than 25% fragments will be redistributed at a thickness of 12 inches on locations that are expected to have a udic (free draining) soil environment and slopes of 3:1 or less.

Areas exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with soil material after covering areas of lesser slope, these areas will always have at least 24 inches of root growth material. At no time will the slope of the material be artificially increased beyond that at which the material is naturally stable.

All other areas not exempted from the grading requirements by 10 CSR 40-10.050(5)(B) will be covered with a layer of soil material, as available to a minimum thickness of 12 inches. The slopes will be 5:1 or less.

If an area is not conducive to vegetation it will be covered with coarse aggregate, (Examples: columnar weathering above a highwall, parking areas, spillways, etc.).

### C. Describe The General Sequence and Timing of the Following Activities

Grading

10 CSR 40-10.050(10)(A)&(C)

Grading will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

Replacement of Topsoil

10 CSR 40-10.050(10)(A)

Topsoil replacement will be completed within twelve (12) months after the expiration or renewal of the permit on areas no longer needed as a part of the active operation of the site.

Revegetation

Initial revegetation will occur during the first year after grading and soil replacement.

Average Depth of Replaced Topsoil (Inches)

RECEIVED

12 inches of soil n	natenal	
D. Use of Land When Reclaimed	Estimated Acres:	MISSCURI LAND
Estimated acreage of each land use below, after reclamation		RECIAMATION COMMISSION
Wildlife (forest or other habitat with livestock excluded)	125	
Agriculture (pasture, cropland, and horticultural)		
Development (residential, industrial, and recreational)		

Water Impoundments (for wildlife, agricultural, or development)



